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1893-97

# CATALOGUE

OF THE

# OFFICERS AND STUDENTS

OF

# THE COLUMBIAN UNIVERSITY,

WASHINGTON, D. C.,

FOR THE ACADEMIC YEAR, 1892–'93.

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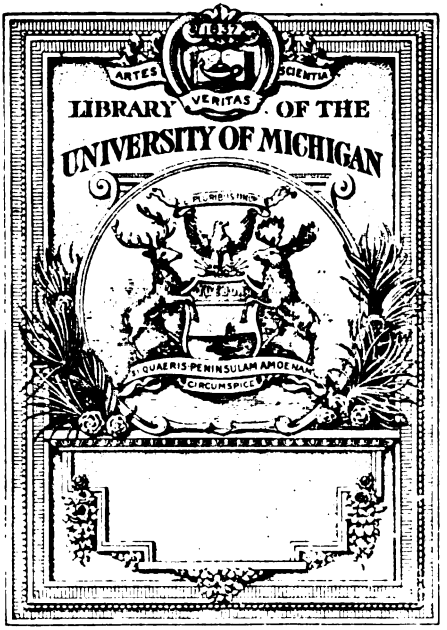
FROM THE UNIVERSITY PRESS.

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO [illegible] SCIENTIFIC SOCIETIES
OF WASHINGTON.
1893.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1893-93

# CATALOGUE

OF THE

# OFFICERS AND STUDENTS

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OF WASHINGTON.
1893.

# CALENDAR FOR 1892.

## SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | -- |
| -- | -- | -- | -- | -- | -- | -- |

## OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

## NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1893.

## JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

## APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | -- | -- | -- | -- | -- | -- |

## MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | -- |
| -- | -- | -- | -- | -- | -- | -- |

## JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

## AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

## OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1894.

## JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

## APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

## JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

*With Compliments of*

JAMES C. WELLING,

*Washington, D. C.*

OF

# THE COLUMBIAN UNIVERSITY,

## WASHINGTON, D. C.,

FOR THE ACADEMIC YEAR, 1892–'93.

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1893.

## MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |

## JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | -- |

## JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

## AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |

## SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

## OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1894.

## JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

## APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

## JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

## AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

# CATALOGUE

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FROM THE UNIVERSITY PRESS.

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JUDD & DETWEILER,
ERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1893.

## KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a centre.

A—The main building of the University, southeast corner 15th and H streets N. W.
B—The Preparatory School.
C C C C—Parcels of ground belonging to the University.
D—The Medical and Dental School building.

Libraries numbered in the order of their proximity to the University.

*Within less than a five or six minutes' walk:*

| | | | |
|---|---|---|---|
| 1. | Library of Department of Labor, | 8,000 | volumes. |
| 2. | " " Department of Justice, | 23,000 | " |
| 3. | " " Treasury Department, | 24,000 | " |
| 3. | " " Light-House Board, | 4,000 | " |
| 4. | " " Bureau of Statistics, | 5,000 | " |
| 5. | " " Geological Survey, | 32,000 | " |
| 5. | " " Bureau of Ethnology, | 5,000 | " |
| 6. | " " Corcoran Gallery of Art, | 2,500 | " |
| 7. | " " War Department, | 30,000 | " |
| 7. | " " Navy Department, | 26,000 | " |
| 7. | " " Department of State, | 55,000 | " |
| 7. | " " War Records Office, | 2,000 | " |
| 7. | " " Hydrographic Office, | 3,000 | " |
| 7. | " " Nautical Almanac Office, | 2,000 | " |
| 8. | " " Museum of Hygiene | 10,500 | " |

*Within a five or ten minutes' ride by the street railway:*

9. Library of United States Patent Office, 50,000 volumes.
10. " " Bureau of Education, 30,000 volumes.
11. " " Department of Agriculture, 25,000 volumes.
12. " " Army Medical Museum, 105,000 volumes.
13. " " United States National Museum, 16 000 volumes.
14. " " United States Weather Bureau, 15,000 volumes.

*Within a fifteen minutes' ride by the street railway:*

15. The Library of Congress, 700,000 volumes.
15. The Library of the United States Supreme Court, 60,000 volumes.
15. The Library of the Smithsonian Institution, 250,000 volumes.
16. Site of the new Congressional Library.
17. Library of the United States Coast and Geodetic Survey, 15,000 volumes.
18. Site of the old United States Naval Observatory.

*Within a thirty minutes' ride by the street railway:*

Library of the new United States Naval Observatory (not indicated on map), 13,000 volumes.

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# UNIVERSITY CALENDAR.

## Current Academic Year, 1892-'93.

1892.

| | | |
|---|---|---|
| Sept. | 23. } Examination of Candidates for admission } Friday. | |
| | 24. } to College. } Saturday. | |
| Sept. | 26.—First College Term begins. | Monday. |
| Sept. | 26.—First Term of Preparatory School begins. | Monday. |
| Oct. | 1.—Session of Medical School begins. | Saturday. |
| Oct. | 4.—Session of Corcoran Scientific School begins. | Tuesday. |
| Oct. | 5.—Session of Law School begins. | Wednesday. |

Nov. 24-26.—Thanksgiving recess.

Dec. 25-Jan. 1, 1893.—Christmas recess.

1893.

| | | |
|---|---|---|
| Jan. | 23.—First College Term Examinations begin. | Monday. |
| Feb. | 6.—Second College Term begins. | Monday. |
| March 31. } Easter recess. | | |
| April 3. } | | |
| April | 12. { Examination of Candidates for Degrees in the Columbian College and the Corcoran Scientific School begins. } | Wednesday. |
| May | 4. { Commencement of Medical and Dental Schools. } | Thursday. |
| May | 22. { Second Term Examinations of College and Corcoran School begin. } | Monday. |
| May | 22.—Law School Examinations for Degrees begin. | Monday. |
| June | 11.—Baccalaureate Sermon. | Sunday. |
| June | 12.—Anniversary Meeting of Alumni. | Monday. |
| June | 12.—Exhibition Day. | Monday. |
| June | 13.—Commencement of Law School. | Tuesday. |
| June | 14. { Commencement of College and Corcoran School. } | Wednesday. |
| June | 16.—Closing Exercises of Preparatory School. | Friday. |
| June | 19.—Annual Meeting of the Corporation. | Monday. |

## Next Academic Year, 1893-'94.

1893.

| | | |
|---|---|---|
| Sept. | 15. } Examination of Candidates for admission } 16. } to College. | Friday. } Saturday. |
| Sept. | 18.—First College Term begins. | Monday. |
| Sept. | 18.—First Term of Preparatory School begins. | Monday. |
| Oct. | 2.—Session of Medical School begins. | Monday. |
| Oct. | 3.—Session of Corcoran School begins. | Tuesday. |
| Oct. | 4.—Session of Law School begins. | Wednesday. |
| Oct. | 5.—Session of Graduate School begins. | Thursday. |
| Nov. 30. } Dec. 2. } | Thanksgiving recess. | |

Dec. 25–Jan. 1, 1894.—Christmas recess.

1894.

| | | |
|---|---|---|
| Jan. | 18.—First College Term Examinations begin. | Thursday. |
| Jan. | 25.—First Corcoran Term Examinations begin. | Thursday. |
| Feb. | 1. { Second Term of College and Corcoran School begins. } | Thursday. |

Mar. 23–26.—Easter recess.

| | | |
|---|---|---|
| April | 11. { Examination of Candidates for Degrees in the Columbian College and the Corcoran Scientific School begins. } | Wednesday. |
| May | 3. { Commencement of Medical and Dental Schools. } | Thursday. |
| May | 15. { Report of Examinations for Degrees in the Graduate School closed. } | Tuesday. |
| May | 21. { Second Term Examinations of College and Corcoran School begin. } | Monday. |
| May | 21.—Law School Examinations for Degrees begin. | Monday. |
| June | 10.—Baccalaureate Sermon. | Sunday. |
| June | 11.—Anniversary Meeting of Alumni. | Monday. |
| June | 11.—Exhibition Day. | Monday. |
| June | 11.—Commencement of the Graduate School. | Monday. |
| June | 12.—Commencement of Law School. | Tuesday. |
| June | 13. { Commencement of College and Corcoran School. } | Wednesday. |
| June | 15.—Closing Exercises of Preparatory School. | Friday. |
| June | 18.—Annual Meeting of the Corporation. | Monday. |

## EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

One. Of the Library of Congress.
Two. Of the National Museum.
Three. Of the Patent Office.
Four. Of the Bureau of Education.
Five. Of the Bureau of Ethnology.
Six. Of the Army Medical Museum.
Seven. Of the Department of Agriculture.
Eight. Of the Fish Commission.
Nine. Of the Botanic Gardens.
Ten. Of the Coast and Geodetic Survey.
Eleven. Of the Geological Survey.
Twelve. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

### Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief Justice of the United States, and the Attorney General are honorary

members of its Board of Trustees. Two Associate Justices of the Supreme Court of the United States, two Associate Justices of the Supreme Court of the District of Columbia, and an Assistant Attorney General of the United States are active members of its Law Faculty. The President of the University is a Regent of the Smithsonian Institution and the Chairman of its Executive Committee. The President of the University is a Director of the National Deaf-Mute College, and the President of that College is a Trustee of the University. The directors of the United States Geological Survey, the Bureau of Ethnology, and the United States National Museum are Trustees of the University. The Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, and the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint, are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The pathology of mental diseases is taught in the Medical School by one of the physicians in charge at the Government Hospital for the Insane, and the President of the University is a member of its Board of Visitors. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the Philosophical Society, the President of the National Geographic Society, and the President of the Anthropological Society of Washington are members of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University. The President of the Columbian Engineering Society is the Professor of Civil Engineering in the Corcoran Scientific School and in the Graduate School of the University.

### Other Scientific Facilities in Washington.

Washington is as much the scientific centre as it is the legislative, executive, and judicial centre of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate of more than 1,300 persons. The Anthropological Society (Dr. Otis T. Mason, President), numbering, according to the last Scientific Directory, 220 active, 82 corresponding, and 26 honorary members, meets fortnightly

or oftener, on Tuesday evenings. The Biological Society (Professor C. V. Riley, President), with 154 active and 41 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society (Dr. F. P. Dewey, President), with 73 resident and 24 non-resident members, holds meetings on the alternate Thursdays of each month. The Entomological Society (Professor C. V. Riley, President), with 30 resident and 79 corresponding members, meets on the first Thursday of each month. The National Geographic Society (the Hon. Gardiner G. Hubbard, LL.D., President), with 780 members, meets every Friday. The Philosophical Society (Dr. G. Brown Goode, President), with 186 active and 64 non-resident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society (Professor J. Howard Gore, Chairman), meets on Wednesday, at irregular intervals, in the mathematical lecture-room of the Columbian University. The Society of Philosophical Inquiry (Professor J. Macbride Sterrett, President), meets every Tuesday afternoon during term time in the philosophical lecture-room of the Columbian University. The Columbian Engineering Society (Professor Francis R. Fava, Jr., C. E., President), meets on the first and the third Tuesday of each month in the Engineering Hall of the University. The Geological Society (Dr. Edward O. Wolcott, President), comprising 110 members, meets on the second and the fourth Wednesday of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences (Professor O. C. Marsh, President) meets annually in Washington in April.

During the Christmas holidays the Lecture Halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society, for the purposes of their annual meetings. As many as eighteen national or international societies held their annual meetings in the University building during the year 1891–'92. These meetings are open to the students of the University.

# THE UNIVERSITY CORPORATION.

JAMES C. WELLING, LL. D.,
*President of the Corporation.*

HONORARY OVERSEERS.

THE PRESIDENT OF THE UNITED STATES.
THE CHIEF JUSTICE OF THE UNITED STATES.
THE ATTORNEY-GENERAL OF THE UNITED STATES.

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THE REV. J. W. M. WILLIAMS, D. D., Baltimore, Md.
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THE REV. F. HOWARD KERFOOT, D. D., Louisville, Ky.
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THE HON. WILLIAM L. WILSON, LL. D., Charlestown, W.Va.
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THE REV. CHARLES A. STAKELY, D. D.

THE HON. J. L. M. CURRY, D. D., LL. D.

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SECRETARY AND TREASURER OF THE CORPORATION.*

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ROBERT H. MARTIN, *Financial Agent.*

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* The office of Secretary and Treasurer is vacant and is temporarily filled by the appointment of the President of the University as Acting Secretary and Treasurer.

## Standing Committees of the Corporation.

*Executive Committee.*

Messrs. CUTHBERT, GALLAUDET, GIVEN, and WELLING.

*Committee on Nominations to Fill Vacancies in the Corporation.*

Messrs. WELLING, WILLIAMS, and MASON.

*Committee on the Preparatory School.*

Messrs. WILSON and CUTHBERT.

*Committee on the Columbian College.*

Messrs. GREENE and STAKELY.

*Committee on the Medical and Dental Schools.*

Messrs. NOYES, POWELL, and GIVEN.

*Committee on the Law School.*

Messrs. MATTINGLY, HUBBARD, and NOYES.

*Committee on the Corcoran Scientific School.*

Messrs. GALLAUDET, GOODE, and MASON.

*Committee on the School of Graduate Studies.*

Messrs.

*Auditing Committee.*

Messrs. GIVEN, WILSON, and MASON.

*Committee on Increase of University Endowment.*

Messrs. LEVERING, GREENE, NOYES, ELLIS, and GOODE.

# ALUMNI ASSOCIATION

OF THE

# COLUMBIAN UNIVERSITY.

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## OFFICERS, 1892–'93,

*President:*

A. F. A. KING, M. D.

*Vice-Presidents:*

CHAPIN BROWN.

WM. B. KING.

*Secretary:*

Prof. H. L. HODGKINS.

*Treasurer:*

JOHN B. LARNER.

*Executive Committee:*

A. F. A. KING, M. D, *Chairman.*

| | |
|---|---|
| CHAPIN BROWN. | H. E. DAVIS. |
| E. B. HAY. | H. L. HODGKINS. |
| WM. B. KING. | JOHN B. LARNER. |
| THEO. W. NOYES. | DAISY M. ORLEMAN, M. D. |
| D. K. SHUTE, M. D. | B. H. WARNER. |

The Alumni have recently commenced work on an organized plan for the increase of the University Library, and a number of contributions to the Library Fund and of additions to the Library have been received.

An illustrated Historical Catalogue of the University has recently been published by the Alumni Association, and unbound copies may be purchased from the Secretary for fifty cents each, and bound copies for one dollar each.

# ENDOWMENTS.

The value of the University's property and endowments is estimated at about $1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of $250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said Corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said Corporation by its original name."

# FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them and called the —— Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them as an endowment for the support of (the School of ——) (a Professorship of ——) (a Lectureship in the School of ——), (a Fellowship in the School of ——) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special signification in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors. The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corcoran Scientific School a separate specialty is called a "Department."

# DIRECTORY

OF THE

# COLUMBIAN UNIVERSITY.

ACADEMIC YEAR 1892-'93.

JAMES C. WELLING, *President of the University.*

A. B., Princeton College, 1844, and A. M., 1847; President of St. John's College (Maryland), 1867; LL. D., Columbian University, 1868; Professor of Belles-Lettres, Princeton College, 1870; President of Columbian University, 1871; President of Corcoran Gallery of Art, 1877; Regent of Smithsonian Institution, 1884, and Chairman of its Executive Committee, 1886; Director of the National Deaf-Mute College, 1888. 1302 Connecticut Avenue.

CLEVELAND ABBE, *Professor of Meteorology.*

A. B., 1857; A. M., 1860; Ph. D., 1891, New York City College; LL. D., University of Michigan, 1889. 2017 I Street NW.

G. N. ACKER, *Demonstrator of Pathological Histology and Clinical Professor of Medicine.*

A. B., 1872; A. M., 1875, Penn College; M. D., University of Berlin, 1877. 913 Sixteenth Street NW.

SAMUEL S. ADAMS, *Clinical Professor of Diseases of Children.*

A. M., University of West Virginia, 1875; M. D., Georgetown University, 1879. 1632 K Street NW.

CYRUS ADLER, *Professor of Oriental History.*

A. B., University of Pennsylvania, 1883; A. M., 1886; Ph. D., Johns Hopkins University, 1887. 943 K Street NW.

LOUIS AMATEIS, *Assistant in Architectural Drawing.*

Gold Medallist Academy of Fine Arts, Turin. 1717 Nineteenth Street.

WOOLSEY ASPINWALL, *Instructor in English.*

1464 Rhode Island Avenue.

FRANK LLOYD AVERILL, *Assistant in Field Engineering.*

C. E., Columbian University, 1891. 1616 Fifteenth Street NW.

FRANK HAGAR BIGELOW, *Professor of Solar Physics.*

A. B., 1873; A. M., Harvard, 1880; Assistant at Cordova; Nautical Almanac Office, 1889; United States Weather Bureau, 1891. 1625 Massachusetts Avenue.

HENRY CARRINGTON BOLTON, *Non-resident Lecturer on the History of Chemistry.*

A. M., Columbia College, 1862; Ph. D., Göttingen, 1866; Assistant in Analytical Chemistry, School of Mines (Columbia College), 1872; Professor of Chemistry, Woman's Medical College, New York, 1875; Professor of Chemistry, Trinity College, Connecticut, 1877; President New York Academy of Sciences, 1893.
University Club, New York.

ANDREW C. BRADLEY, *Lecturer on Criminal Law and on Criminal Pleading and Practice.*

Associate Justice of the Supreme Court of the District of Columbia.
2013 Q Street NW.

DAVID J. BREWER, *Professor of the Law of Corporations.*

A. B., Yale College, 1856; LL. B., Albany Law School, 1858; Judge of Kansas District Court, 1865; Justice of Kansas Supreme Court, 1870–'82; Judge of United States Circuit Court, 1884; Associate Justice of United States Supreme Court, 1889. Cor. 14th and Euclid Streets.

HENRY ANDREWS BUMSTEAD, *Assistant in Physics.*

A. B., Johns Hopkins University, 1891. 1006 Madison Avenue, Baltimore, Md.

WILLIAM K. BUTLER, *Professor of Ophthalmology.*

A. M., 1879; M. D., 1882, Columbian University. 1207 M Street NW.

WILLIAM P. CARR, *Professor of Physiology.*

M. D., Columbian University, 1888. 1103 Thirteenth Street NW.

THOMAS MAREAN CHATARD, *Lecturer on Chemical Engineering.*

A. B., Harvard, 1871; Ph. D., Heidelberg, 1876. 1758 K Street NW.

JOHN J. CHICKERING, *Associate Principal, Preparatory School.*

A. M., Amherst, 1879; LL. M., Columbian University, 1890.
Kendall Green, D. C.

ALEXANDER SMYTH CHRISTIE, *Professor of Mathematical Physics.*

Chief of Tidal Division, United States Coast and Geodetic Survey, 1885; LL. B., Columbian University, 1885; LL. M., National University Law School, 1888.
115 Fourth Street NE.

FRANK WIGGLESWORTH CLARKE, *Professor of Mineral Chemistry.*

S. B., Harvard, 1867; Chief Chemist, United States Geological Survey, 1883.
1612 Riggs Place NW.

GEORGE V. CHANDLER, *Assistant in Mineralogy and Geology.*

Examiner United States Patent Office. 213 C Street SE.

WALTER S. COX, *Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.*

A. B., Georgetown College, 1843; A. M., 1845; LL. B., Harvard University Law School, 1847; LL. D., Columbian University, 1875; Associate Justice Supreme Court of the District of Columbia, 1879; Trustee of Corcoran Gallery of Art, 1 88. 1636 I Street NW.

ANDREW FULLER CRAVEN, *Assistant Professor of Economics.*

LL. B., Chicago University, 1869; A. B., Harvard University, 1889.
Columbian University.

GEORGE EDWARD CURTIS, *Assistant in Meteorology.*.
B. A., 1882; M. A., 1887, Yale. 1237 M Street NW.

HENRY E. DAVIS, *Lecturer on the History of Law.*
A. B.. 1876; A. M., 1879, Princeton; LL. B., 1878; LL. M., 1879, Columbian University; Assistant Attorney, District of Columbia, 1885.
1825 Jefferson Place NW.

R. B. DONALDSON, *Clinical Operator.*
D. D. S., Maryland Dental College, 1876; Honorary D. D. S., Baltimore College Dental Surgery, 1878. 1309 F Street NW.

WILLIAMS DONNALLY, D. D. S., *Clinical Operator.*
1022 Fourteenth Street NW.

GEORGE HENRY EMMOTT, *Lecturer on the Civil Law.*
A. B. and LL. B, University of Cambridge (Eng.), 1879; A. M., 1882, and LL. M., 1892; sometime Associate and Lecturer on Roman and English Law in Victoria University (Eng.); Lecturer in English Law to the Birmingham (Eng.) Law Society, 1882-'85; now Professor of Roman Law and Comparative Jurisprudence in the Johns Hopkins University.
Johns Hopkins University, Baltimore, Md.

FRANCIS RENATUS FAVA, *Professor of Civil Engineering.*
C. E., 1882, Polyt., Zürich. 917 Sixteenth Street NW.

EDWIN H. FOWLER, *Assistant in Topographical Drawing.*
B. S., Dartmouth, 1878. 1126 East Capitol Street.

FELIX FREYHOLD, *Assistant in Iron and Steel Construction.*
C. E., Lehigh, 1885. 236 First Street SE.

EDGAR FRISBY, *Professor of Astronomy.*
M. A., University of Toronto, 1868; Acting Professor of Mathematics, Northwestern University, 1867; Assistant, United States Naval Observatory, 1868; Professor of Mathematics, United States Navy, 1878. 1607 Thirty-first Street.

W. DeLANCY GILL, *Assistant in Freehand Drawing.*
United States Geological Survey. The Woodmont.

THEODORE NICHOLAS GILL, *Professor of Zoölogy.*
A. M., 1865; M. D., 1866; Ph. D., 1870, Columbian University. National Museum.

JAMES HOWARD GORE, *Professor of Mathematics and Geodesy.*
B. S., 1879; Ph. D., 1888, Columbian University. 1521 New Hampshire Avenue.

WILLIAM M. GRAY, *Demonstrator of Normal Histology.*
M. D., University of Pennsylvania, 1852; Microscopist of the Army Medical Museum; Director of the Lionel Laboratory. 2133 P Street NW.

ADOLPHUS WASHINGTON GREELY, *Professor of Geography.*
Brigadier General and Chief Signal Officer, United States Army; Queen's Gold Medal, Royal Geographical Society, 1885; Gold Medal, Paris Geographical Society, 1885; Chief of Signal Service Corps, 1887. 1914 G Street NW.

J. R. HAGAN, *Demonstrator in Charge of Infirmary.*
D. D. S, 1891, Columbian University.

W. S. HARBAN, *Clinical Operator.*
D. D. S., Baltimore College of Dental Surgery, 1877.
1342 New York Avenue NW.

JOHN M. HARLAN, *Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts.*
A. B., Centre College (Kentucky), 1850; LL. B., Transylvania University, 1853; Attorney General of Kentucky, 1863; Associate Justice of the United States Supreme Court, 1877. Cor. 14th and Euclid Streets.

EDWIN EWELL HARRIS, *Assistant in Chemistry.*
A. B., 1891, Taber College. 430 College Street NW.

WILLIAM T. HARRIS, *Professor of Philosophy.*
Honorary A. M., Yale, 1869; LL. D., University of Missouri, 1870; Honorary "Officer of the Academy," and Honorary "Officer of Public Instruction," 1889, by decree of French Government; United States Commissioner of Education, 1889; Editor of the Journal of Speculative Philosophy.
914 Twenty-third Street NW.

GEORGE BYRD HARRISON, *Professor of Pædiatrics.*
M. D., University of Virginia, 1879. 605 Fourteenth Street NW.

EDWIN B. HAY, *Instructor in Penmanship and Book-keeping.*
B. S., 1873; LL. B., 1874, Columbian University. 1512 Corcoran Street NW.

H. G. HODGKINS, *Registrar and Librarian.*
A. B., Columbian University, 1890. 1511 Tenth Street NW.

HOWARD LINCOLN HODGKINS, *Professor of Mathematics and Physics.*
A. M., 1883; Ph. D., 1892, Columbian University. 1830 T Street NW.

L. C. F. HUGO, *Clinical Operator.*
D. D. S., Baltimore College Dental Surgery, 1880. 808 Seventeenth Street NW.

A. J. HUNTINGTON, *Professor of Greek.*
A. B., 1843; A. M., 1846, Columbian College; D. D., Brown University, 1868.
1010 N Street NW.

E. HILTON JACKSON, *Assistant in Latin.*
A. B., 1891; LL. B., 1892, Columbian Univessity. 1321 Q Street.

H. L. E. JOHNSON, *Professor of Gynecology.*
M. D., Columbian University, 1882. 1400 L Street NW.

JOHN SCOTT JOHNSON, *Assistant in Applied Mathematics.*
1460 Corcoran Street NW.

WILLIAM G. JOHNSON, *Professor of Legal Catechetics and Judge of Moot Court.*
LL. B., 1883; LL. M., 1884; Judge of Moot Court, 1891; Professor of Legal Catechetics, 1892, Columbian University. 1400 L Street NW.

WILLIAM W. JOHNSTON, *Professor of Theory and Practice of Medicine.*
M. D., University of Pennsylvania, 1865. 1603 K Street NW.

A. F. A. KING, *Professor of Obstetrics and Gynecology.*
M. D., Columbian University, 1861; M. D., University of Pennsylvania, 1865; Honorary A. M., University of Vermont, 1884.
1315 Massachusetts Avenue NW.

HARRY KING, *Professor of Drawing.*
LL. B., Columbian University, 1870. United States Geological Survey.

FRANK HALL KNOWLTON, *Professor of Botany.*
B. S., 1884; M. S., 1887, Middlebury. United States National Museum.

FRANK LEECH, *Clinical Assistant.*
M. D., Columbian University, 1891. Garfield Hospital.

WILLIAM LEE, *Professor of Physiology.*
M. D., College of Physicians and Surgeons, New York. 1821 I Street NW.

J. S. LEMON, *Lecturer on Psycho-Physics.*
A. B., 1864, A. M., 1867, Wesleyan, Conn.

EXUM PERCY LEWIS, *Instructor in Physics.*
B. S., Columbian University, 1888. 1507 Vermont avenue.

J. HALL LEWIS, *Professor of Dental Prosthetics.*
D. D. S., Baltimore College of Dentistry, 1879. 1309 F Street NW.

N. S. LINCOLN, *Emeritus Professor of Surgery.*
A. B., Dartmouth, 1850; M. D., University of Maryland, 1852; Acting Assistant Surgeon, United States Army, 1861-'65. 1514 H Street NW.

LEE DAVIS LODGE, *Professor of French and Philosophy.*
A. M., 1885; Ph. D., 1892, Columbian University. Gaithersburg, Md.

THOMAS E. McARDLE, *Professor of Minor Surgery.*
A. M., University of Saint Mary's, Baltimore, 1875; M. D., Georgetown University, 1879. 819 Seventeenth Street NW.

LOUIS MACKALL, JR., *Assistant Demonstrator of Anatomy.*
M. D., Columbian University, 1890. 1203 Thirty-first Street NW.

ROBERT H. MARTIN, *Financial Agent.*
1608 Seventeenth Street NW.

OTIS TUFTON MASON, *Lecturer on Anthropology.*
A. B., 1861; A. M., 1862; Ph. D., 1879, Columbian University; Curator, Department of Anthropology, U. S. National Museum, 1884; "Les Palmes d'officier d'Instruction Publique," of the first rank, 1889.
1777 Massachusetts Avenue NW.

WILLIAM F. MATTINGLY, *Lecturer on Practical Commercial Law.*
Ph. B., 1857; A. M., 1861, Columbian University. 1616 H Street NW.

WILLIAM A. MAURY, *Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.*
LL. B., Harvard, 1853; LL. D., Columbian University, 1880; Assistant Attorney General of the United States, 1882. 1767 Massachusetts Avenue NW.

GEORGE P. MERRILL, *Professor of Geology.*

B. S., 1879; M. S., 1882: Ph. D., 1889, State University of Maine; Assistant in Chemistry, Wesleyan University, 1880; Assistant, United States National Museum, 1880; Curator, Department of Geology, United States National Museum, 1886. Cosmos Club.

VICTOR MINDELEFF, *Assistant in Modelling.*

Ohio Bank Building.

ANDREW PHILIP MONTAGUE, *Professor of Latin.*

A. M., 1879; Ph. D., 1888, Columbian University. 1514 Corcoran Street.

VERANUS A. MOORE, *Assistant Demonstrator of Pathological Histology.*

B. S., Cornell University, 1887; Assistant Demonstrator of Pathological Histology, 1890; M. D., Columbian University, 1890. Agricultural Department.

CHARLES EDWARD MUNROE, *Professor of Chemistry.*

S. B., 1871, Harvard; Assistant in Chemistry, Harvard University, 1871–'74; Professor of Chemistry, United States Naval Academy, 1874–'86; Chemist to Torpedo Corps, United States Navy, 1886–'92. 1922 H Street NW.

H. B. NOBLE, SR., *Clinical Operator.*

D. D. S., Baltimore College of Dental Surgeons, 1857. 1324 New York Avenue NW.

THEODORE E. OERTEL, *Prosector of the Chair of Anatomy.*

M. D., Columbian University, 1892. 2210 M Street NW.

A. CLARK PATTERSON, *Professor of Mental Diseases.*

M. D., Columbian University, 1879. Government Hospital for the Insane.

WILLIAM F. R. PHILLIPS, *Prosector of the Chair of Anatomy.*

M. D., Columbian University, 1888. 933 M Street NW.

JOSIAH PIERCE, JR., *Lecturer on Topographical Surveying.*

B. A., 1882; M. A., 1886, Emmanuel College (Cambridge, England). 1325 Massachusetts Avenue NW.

D. WEBSTER PRENTISS, *Professor of Materia Medica and Therapeutics.*

Ph. B., 1861; A. M., 1864, Columbian College; M. D., University of Pennsylvania, 1864. 1101 Fourteenth Street NW.

H. A. PRESSEY, *Assistant in Physics.*

14 Third Street NE.

HENRY ROGERS PYNE, *Assistant in Latin.*

1702 S Street NW.

MARATHON MONTAGUE RAMSEY, *Assistant in Spanish.*

2120 H Street NW.

HERBERT LOUIS RICE, *Assistant in Astronomy.*

Nautical Almanac Office.

CHARLES W. RICHARDSON, *Professor of Laryngology and Otology.*

M. D., Columbian University, 1884; University of Pennsylvania, 1884. 1102 L Street NW.

ALVA SIGEL ROUSH, *Assistant Demonstrator.*

A. M., Ohio University, 1884; M. S., Medical College of Ohio, 1887; M. D., St. Bartholomew's, London, 1889; D. D. S., Columbian University, 1892.
716 Eleventh Street NW.

STERLING RUFFIN, *Professor of Medical Jurisprudence.*

M. D., Columbian University, 1890. Treasury Department.

HERMANN SCHOENFELD, *Professor of German.*

Ph. D., Leipsic, 1887. 1108 H Street NE.

D. K. SHUTE, *Professor of Anatomy.*

A. B., 1879; M. D., 1883, Columbian University. 1321 Q Street NW.

SAMUEL M. SHUTE, *Professor of the English Language and Literature.*

A. B., 1844; A. M., University of Pennsylvania, 1847; D. D., Mercer University, Georgia, 1869. 1321 Q Street NW.

EMIL A. DE SCHWEINITZ, *Professor of Chemistry and Toxicology.*

A. B., 1882; A. M., 1884, University of North Carolina; Ph. D., Göttingen, 1886.
1732 K Street NW.

WILLIAM EDGAR SIMONDS, A. M., LL. B., *Professor of the Law of Patents.*

A. M., LL. B., Professor of Patent Law, Yale: United States Commissioner of Patents, 1889. The Woodmont.

THEOBALD SMITH, *Professor of Bacteriology and Hygiene.*

M. D., Albany Medical College, 1883. 1527 O Street NW.

J. CURTIS SMITHE, *Clinical Operator.*

D. D. S., Maryland Dental College, 1870; D. D. S., Baltimore College of Dental Surgery, 1872. 1315 New York Avenue NW.

ANTONIO M. SOTELDO, *Professor of Spanish.*

LL. D., University of Merida (Venezuela), 1845. 1333 Q Street NW.

J. MACBRIDE STERRETT, *Professor of Philosophy.*

A. B., University of Rochester, 1867; B. D., Cambridge Episcopal Seminary, 1872; D. D., University of Rochester, 1886. Pierce Mill Road.

CHARLES WORDELL STILES, *Instructor in Histology.*

A. M.; Ph. D., Leipsic, 1890. United States Department of Agriculture.

HENRY C. THOMPSON, *Professor of Operative Dentistry.*

D. D. S., Philadelphia College Dental Surgery, 1891.
1113 Pennsylvania Avenue NW.

J. FORD THOMPSON, *Professor of Surgery.*

M. D., University of Maryland; Acting Assistant Surgeon, United States Army, 1861-'65. 804 Seventeenth Street NW.

ERNEST LAUGHTON THURSTON, *Assistant in Engineering.*

1505 R Street NW.

EDMUND E. TOMPKINS, *Clinical Professor of Diseases of the Nervous System.*

M. D., University of Virginia, 1885; M. D., New York Graduate School, 1888. 826 Fourteenth Street NW.

JOHN VAN RENSSELAER, *Assistant Demonstrator of Anatomy.*

A. B., Hobart College, 1882; M. D., Columbian University, 1889. 916 Fourteenth Street NW.

JOHN R. WELLINGTON, *Demonstrator of Minor Surgery.*

Resident Physician, Children's Hospital; M. D., Columbian University, 1891. Children's Hospital

CABELL WHITEHEAD, *Assistant in Assaying.*

B. M. 1885, Lehigh; Chief Assayer of the Bureau of the Mint, United States Treasury Department. 1114 New Hampshire Avenue.

HARVEY WASHINGTON WILEY, *Professor of Agricultural Chemistry.*

A. B., 1867; A. M., 1870: Ph. D., 1876, Hanover College; S. B., 1873, Harvard; M. D., 1871, Indiana Medical College. 1314 Tenth Street NW.

WILLIAM CRAWFORD WINLOCK, *Professor of Astronomy.*

A. B., 1880, Harvard; Curator of Exchanges, Smithsonian Institutiod, 1888. 2005 O Street NW.

FRANK A WOLFF, *Assistant in Physics.*

B. A., Johns Hopkins University, 1890. Baltimore, Md.

AUGUSTUS S. WORTHINGTON, *Lecturer on Legal Bibliography and the Use of Authorities in Court.*

LL. B., 1868, Columbian University; United States District Attorney, District of Columbia, 1884-'88. 2015 Massachusetts Avenue NW.

H. C. YARROW, *Professor of Dermatology.*

M. D., University of Pennsylvania, 1861; Surgeon Fifth Pennsylvania Cavalry. 814 Seventeenth Street NW.

WILLIAM SMITH YEATES, *Professor of Mineralogy and Geology.*

A. B., 1878; A. M., 1881, Emory and Henry. 15 Grant Place NW.

GLENDIE B. YOUNG, *Assistant Demonstrator of Anatomy.*

M. D., 1888; Assistant Demonstrator of Anatomy, 1890, Columbian University. 730 Eleventh Street NW.

### Janitors.

FRANK BECKET, *Law Building.*
DANIEL CONNOR, *Medical School.*
RIXON T. HARRIS, *University Building.*
WALTER HONESTY, *Preparatory School.*
WALTER L. LEWIS, *University Building.*

# THE LAW SCHOOL.

## The Faculty.

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of Public and Private International Law.

THE HON. JOHN M. HARLAN, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts.

THE HON. WALTER S. COX, LL.D.,
(Associate Justice of the Supreme Court of the District of Columbia,)
Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.

THE HON. WILLIAM A. MAURY, LL.D.,
(Assistant Attorney General of the United States,)
Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.

THE HON. DAVID J. BREWER, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Law of Corporations.

PROF. G. H. EMMOTT, A.M., LL.M.,
(of the Johns Hopkins University,)
Lecturer on the Civil Law.

HENRY E. DAVIS, A.M., LL.M.,
(Sometime Assistant Attorney of the District of Columbia,)
Lecturer on the History of Law.

THE HON. AUGUSTUS S. WORTHINGTON, LL.B.,
(Sometime District Attorney of the United States,)
Lecturer on Legal Bibliography and the Use of Authorities in Court.

WILLIAM F. MATTINGLY, Esq.,
(of the Washington Bar,)
Lecturer on Practical Commercial Law.

THE HON. WILLIAM EDGAR SIMONDS, A.M., LL.B.,
(United States Commissioner of Patents,)
Professor of the Law of Patents.

THE HON. ANDREW C. BRADLEY,
(Associate Justice of the Supreme Court of the District of Columbia,)
Lecturer on Criminal Law and on Criminal Pleading and Practice.

WILLIAM G. JOHNSON, LL.M.,
(of the Washington Bar,)
Professor of Legal Catechetics and Judge of Moot Court.

The Law School of the Columbian University is held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

**Admission.**

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not spent one year either at this or some other law school or performed a corresponding amount of study under the direction of a member of the bar.

**Matriculation.**

No fee is charged for Matriculation, but at least one month's tuition must be paid in advance on registration. The register will be open for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

**Sessions.**

The entire course of study in the undergraduate department embraces two years. The annual session begins on the first Wednesday of October and ends on the Tuesday next before the second Wednesday in June. The exercises of the School begin daily at 6 o'clock p. m., an arrangement which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students

the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

### Course of Instruction.

The School has three classes, a Junior and a Senior in the undergraduate department and a graduate Class in Practice.

### Junior Class.

PROFESSOR COX,

(Associate Justice of the Supreme Court of the District of Columbia.)

The instructor of the Junior Class, aiming to secure for his pupils as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries, Parsons on Contracts, and Byles on Bills, as text books, to be carefully read and studied. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teachings of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study of law; and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

### On Domestic Relations, on Commercial Paper, and on Torts.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

Mr. Justice HARLAN gives a course of lectures on each of these subjects. While he follows the general order and arrangement in respect to them pursued respectively in Schouler's Domestic Relations, Byles on Bills and Pollock on Torts, there is no mere study of these as text books. Mr. Justice HARLAN'S aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of

all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of foundation principles. This course extends through the whole scholastic year.

### The Senior Class.

PROFESSOR MAURY,

(Assistant Attorney General of the United States.)

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleading and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleadings and Practice in Equity being the text books used under these heads. The closing part of the course is occupied with the Law of Partnership considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies, Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

### Legal Catechetics.

PROFESSOR WILLIAM M. JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on four days of each week) conducted by Professor WILLIAM M. JOHNSON, a graduate of the School who is familiar with its methods of

instruction. His "quizzes" are additional and supplemental to those of the Professors.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text books and the lectures, the student is called to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *viva voce* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

### Constitutional Law.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

A course of Lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN, of the Supreme Court of the United States.

In this course the Student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examinnation of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of the instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These Lectures are delivered every Saturday and are open to both the graduate and undergraduate classes of the School.

### Law of Corporations.

PROFESSOR BREWER,

(Associate Justice of the Supreme Court of the United States.)

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So much of the business, and the great business, of the day is done by corporations that they furnish a large amount of the litigation; and, because of such importance, special attention is given to it in this School. An extensive course of lectures is delivered by Mr. Justice

BREWER, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of to-day, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

### International Law.

PRESIDENT WELLING.

After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its historical growth, the instructor seeks to give a brief exposition of the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications, alike to the conduct of nations and the conduct of individuals.

These Lectures are open to both the graduate and the undergraduate classes of the School.

### The Civil Law.

PROFESSOR EMMOTT.

Professor GEORGE H. EMMOTT, A. M., LL. M., of the Johns Hopkins University, a graduate of the University of Cambridge, England, delivers every year a course of Lectures on the Civil Law, in which the principles of the Roman jurisprudence are expounded under given heads, as well for their intrinsic historical interest as for the light they shed on English Common Law.

### Law of Patents.

PROFESSOR SIMONDS.

The Hon. WILLIAM E. SIMONDS, U. S. Commissioner of Patents, delivers a course of lectures on the Law of Patents, in which, after tracing the origin and growth of our Federal Patent system, he discusses, as far as practicable, the nature of Patent Property and the general nature of Patent Practice considered in its special modes of procedure.

### Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This

Society holds public exercises under the auspices of the University at the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

### Library and Reading-room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, books of reference, etc., is open for purposes of study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. Attached to the Library is a reading-room supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

The Library of the Department of Justice, comprising over 22,000 volumes, is open to law students for reference or study and is situated within a two-minutes' walk of the University.

### Special Facilities.

Besides this Law Library of the Department of Justice, the Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurisprudence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

### Examination and Graduation.

All candidates for graduation are required to pass a general examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who, having passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

The time spent in the Law School of the University is counted as part of the period of study required for admission to the bar of the Supreme Court of the District of Columbia.

### Prizes.

A prize of $100, called "The Parker Prize," in honor of its donor, Myron M. Parker, Esq., is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of $50, called "The Britton Prize," in honor of its founder, Alexander T. Britton, Esq., is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of $40, one of $30, and one of $20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior Class as shall compete for them and shall pass a successful examination for the decree of Bachelor of Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

### Prize Men in 1891–'2.

Parker Prize, ROBERT E. WOODS, of Kentucky.
Britton Prize, ARTHUR S. DUDLEY, of Wisconsin.
First Essay Prize, JAMES C. HOOE, of Virginia.
Second Essay Prize, O. M. MATHER, of Kentucky.
Third Essay Prize, ROBERT E. WOODS, of Kentucky.
First Debater's Prize, ROBERT E. WOODS, of Kentucky.
Second Debater's Prize, E. HILTON JACKSON, of Virginia.

In the award of the Parker Prize WHITMAN OSGOOD, of Illinois; ROBERT E. PARKER, of California; THADDEUS CAHILL, of New York; WALTER M. CAMPBELL, of Michigan; CHARLES F. CONSAUL, of Michigan, and RICHARD NIXON, of Louisiana; and in the award of the Britton Prize, STEVEN W. WILLIAMS, of South Carolina; JAS. H. LIGHTFOOT, of Virginia, and PAUL H. CROMELIEN, of the District of Columbia, received Honorable Mention.

### Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom they and the Faculty may have selected for that purpose.

### Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* for a single year or *one hundred and fifty dollars* for two

scholastic years, payable in advance, half yearly, or in monthly installments, at the option of students. Students who devote three years or more to the preparation for graduation may have this privilege by the payment of *two hundred dollars* for the entire course. If a student shall for any cause intermit the studies of either his first or his second year at any point before graduation the payments he may have made during either or both of these years will not work exemption from the regular monthly dues of any subsequent year on which he may attend the School, but it shall always be open to him to profit by the benefits of the three years' rule. A charge of *two dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin Board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

## GRADUATE COURSE IN PRACTICE.

A Graduate course of instruction in Common Law Practice and in Equity Pleadings and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors MAURY, DAVIS, and JOHNSON, as a supplement to the undergraduate course of the Law School. The course leads to the degree of Master of Laws.

In the Common Law Branch the students use, under the direction of Professor DAVIS, a work on Practice prepared by Professor COX, after which they are exercised in the conduct and trial of causes, and thus taught to apply their theoretical learning in pleadings, practice, and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's Law of *Nisi Prius*. During more than half the term the exercises are those of a *Nisi Prius* Moot Court, presided over by Professor WILLIAM G. JOHNSON, LL.M., a member of the Washington bar and a graduate of the Columbian University Law School.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleadings and in the mode of conducting an equity case. The text book employed will be Mitford and Tyler's Equity Pleading and Practice.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the Courts of the United States.

Candidates for admission to this Graduate course are required to furnish evidence that they have been diligent and successful students of law

for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission to the course. At the end of the course all such students who shall sustain a satisfactory examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied; but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of nine months, is *twenty-five dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

### Criminal Law and Procedure.

The Hon. ANDREW C. BRADLEY, Associate Justice of the Supreme Court of the District of Columbia, delivers a series of Lectures on Criminal Law and Criminal Procedure. These lectures will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, and will treat particularly of other principles and of offences which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The Lectures upon Criminal Procedure will treat of pleading and practice in criminal cases, and in discussing the procedure at the trial of criminal cases the difference between criminal and civil practice in regard to the rules of evidence will be pointed out.

The course is open to all the classes of the School.

### On Law Books and How to Use Them.

The Hon. AUGUSTUS S. WORTHINGTON, LL.B., a graduate of the Columbian University Law School and formerly United States District Attorney for the District of Columbia, delivers a short course of lectures on English and American text books and reports.

These lectures treat of the organization and relation to each other of the English courts and of the different courts of the United States, State and Federal, as bearing upon the comparative value of their reported

opinions considered as precedents, and contain practical suggestions concerning the use of authorities in court and the manner in which the decisions upon a given point can be most readily found.

The course is open to all the classes of the School.

### Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to all the classes of the School.

### The History of Law.

Professor HENRY E. DAVIS, A. M., LL. M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and the United States.

The course is open to all the classes of the School.

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## PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting of June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

At the same time the President of the University was instructed to visit the leading universities of Europe in which jurisprudence is taught according to the comparative method, in order to collect available information under this head for the use of the Board. The organization of the new School has been arrested for the want of adequate endowment, but a beginning in that direction will, it is hoped, be made during the next scholastic year.

In this new School it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first

rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions (after the manner of Freeman in his "Comparative Politics") and along the line of legal institutes (after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a thorough and philosophical study of the English Common Law, of American State and Federal jurisprudence, and of that supreme law of the civilized world, the Law of Nations.

## STUDENTS OF LAW.

### Graduate Class in Practice.

| Name. | Residence. |
|---|---|
| John B. Abbott,<br>LL.B., Columbian University, 1892. | New Hampshire. |
| Charles S. Albert,<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| Perry Allen,<br>LL.B., Columbian University, 1892. | Massachusetts. |
| Cyrus N. Anderson,<br>LL.B., Columbian University, 1892. | Mississippi. |
| G. C. Aukam,<br>LL.B., Columbian University, 1892. | New York. |
| Edward F. Ayres,<br>A. B., Yale, 1888; A. M., Yale, 1890.<br>LL.B., Columbian University, 1892. | Connecticut. |
| J. E. Baker, | District of Columbia. |
| Charles F. Beale,<br>A. B., Harvard, 1880. | New York. |
| Wm. Du Val Brown,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| G. Burroughs,<br>LL.B., Columbian University, 1892. | District of Columbia. |

| Name. | Residence. |
|---|---|
| **Charles N. Butler,**<br>C. E., Lehigh, 1888.<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| **Elias N. Butts,**<br>LL.B., Columbian University, 1892. | New York. |
| **Thaddeus Cahill,**<br>A. B.<br>LL.B., Columbian University, 1892. | New York. |
| **W. F. Clyborne,**<br>LL.B., Columbian University, 1892. | California. |
| **Charles F. Consaul,**<br>LL.B., Columbian University, 1892. | Michigan. |
| **James A. Davidson,**<br>LL.B., Columbian University, 1892. | New York. |
| **Walter W. Davis,**<br>LL.B., Columbian University, 1892. | Kansas. |
| **F. C. Dezendorf,**<br>LL.B., Columbian University, 1892. | Virginia. |
| **Victor L. Dodge,**<br>LL.B., Columbian University, 1892. | District of Columbia. |
| **F. J. Dunn,**<br>LL.B., Indiana University, 1892. | Indiana. |
| **Charles F. Fadeley,**<br>LL.B., Columbian University, 1892. | Virginia. |
| **E. Hayward Fairbanks,**<br>B. S., Worcester Polytechnic Institute, 1887.<br>LL.B., Columbian University, 1892. | Massachusetts. |
| **Theodore C. Fenton,**<br>Graduate United States Naval Academy, 1885.<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| **Howard W. Fitz,**<br>LL.B., Columbian University, 1892. | Rhode Island. |
| **D. Kelsey Fitzhugh,**<br>A. B., Baylor University, 1887.<br>LL.B., Columbian University, 1892. | District of Columbia. |
| **C. Eugene Foote,**<br>LL.B., Columbian University, 1892. | Ohio. |
| **Richard A. Ford,**<br>LL.B., Columbian University, 1892. | South Carolina. |
| **P. J. Galligan,**<br>LL.B., Columbian University, 1892. | Iowa. |

| Name. | Residence. |
|---|---|
| A. I. Gardner,<br>B. S., Worcester Polytechnic Institute, 1889.<br>LL.B., Columbian University, 1892. | Massachusetts. |
| Arthur H. Giles,<br>LL.B., Columbian University, 1892. | New York. |
| Frank Lee Graham,<br>LL.B., Columbian University, 1892. | Montana. |
| Alex. Grant,<br>LL.B., Columbian University, 1892. | Michigan. |
| J. Colfax Grant,<br>B. S., University of Minnesota, 1890.<br>LL.B., Columbian University, 1892. | Minnesota. |
| Charles J. Groseclose,<br>A. B., Roanoke College, 1882.<br>LL.B., Columbian University, 1892. | Virginia. |
| Henry Hawxhurst,<br>LL.B., Columbian University, 1892. | Virginia. |
| Henry A. Hayward,<br>LL.B., Columbian University, 1892. | Minnesota. |
| M. D. Hensey,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Daniel Higgins,<br>LL.B., Columbian University, 1892. | Utah. |
| Percy B. Hills.<br>LL.B., Columbian University, 1892. | District of Columbia. |
| H. Stanley Hinricks,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| James C. Hooe,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Allan J. Houghton,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Harry P. Huddleson,<br>LL.B., Columbian University, 1892. | Missouri. |
| George M. Hull,<br>LL.B., De Pauw University, 1890. | Wisconsin. |
| E. Hilton Jackson,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1892. | Virginia. |
| G. Sherman James,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Ernest W. Jones, | Ohio. |

| Name. | Residence. |
|---|---|
| John E. Laskey,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| F. C. Lawyer,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Jesse B. K. Lee,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Walter I. Lembkey,<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| R. L. Lerch,<br>Graduate U. S. Naval Academy, 1883.<br>LL.B., Columbian University, 1892. | Ohio. |
| P. S. Lowry,<br>LL.B., National University, 1892. | Ohio. |
| J. H. McElroy,<br>A. M., De Pauw University, 1891.<br>LL.B., Columbian University, 1892. | Illinois. |
| O. M. Mather,<br>LL.B., Columbian University, 1892. | Kentucky. |
| Robert E. Mattingly,<br>LL.B., Georgetown University, 1891.<br>LL.M., Georgetown University, 1892. | District of Columbia. |
| George H. Maxwell,<br>A. B., Syracuse University, 1888.<br>A. M., Syracuse University, 1891. | New York. |
| F. P. Mendenhall,<br>LL.B, Columbian University, 1892. | District of Columbia. |
| A. E. H. Middleton, | South Carolina. |
| F. M. P. Montague,<br>LL.B., Columbian University, 1892. | Virginia. |
| John D. Morgan,<br>LL.B., Columbian University, 1892. | Washington. |
| Edward Grant Niles,<br>B.S., Maryland Agricultural College, 1890.<br>LL.B., Columbian University, 1892. | Maryland. |
| Richard Nixon,<br>LL.B., Columbian University, 1892. | Louisiana. |
| Whitman Osgood,<br>LL.B., Columbian University, 1892. | Illinois. |
| B. E. Padgett,<br>LL.B., University of Virginia, 1885. | Maryland. |
| Robert E. Parker,<br>LL.B., Columbian University, 1892. | California. |

| Name. | Residence. |
|---|---|
| M. C. Patterson,<br>LL.B., Columbian University, 1892. | Tennessee. |
| B. Kennon Peter,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Samuel N. Pond,<br>A. B., Yale, 1889.<br>LL.B., Columbian University, 1892. | Connecticut. |
| W. W. Poultney,<br>A. M., 1884.<br>B. C. E., 1886.<br>Ph. B., 1887.<br>LL.B., National University, 1890.<br>LL.M., National University, 1891. | Ohio. |
| J. Clarence Price,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Charles L. Pyne,<br>LL.B., Columbian University, 1892. | Maine. |
| Charles A. Rhetts,<br>A. B., Indiana State University, 1889.<br>LL.B., Columbian University, 1892. | Indiana. |
| A. L. Richardson,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Martin A. Ryan,<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| William J. Sandoz,<br>LL.B., Columbian University, 1892. | Louisiana. |
| William F. Shute, | District of Columbia. |
| John W. F. Smith,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| R. H. Smith,<br>LL.B., Indiana University, 1892. | Indiana. |
| Faber Stevenson,<br>LL.B., Columbian University, 1892. | Ohio. |
| Frank D. Syrick,<br>LL.B., Columbian University, 1891. | Virginia. |
| Lauren J. Taylor,<br>LL.B., Columbian University, 1892. | Kentucky. |
| Aug. B. Tolman,<br>LL.B., Columbian University, 1892. | Massachusetts. |
| Clarence Van Duzer, | Nevada. |
| George H. Walker,<br>LL.B., Columbian University, 1892. | Ohio. |

| Name. | Residence. |
|---|---|
| Victor H. Wallace,<br>LL.B., Columbian University, 1892. | Georgia. |
| William U. Watson,<br>LL.B., Columbian University, 1892. | Iowa. |
| Thomas S. White,<br>LL.B., Columbian University, 1892. | Maryland. |
| Adolph G. Wolf,<br>A. B., Johns Hopkins University, 1890.<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Henry L. Wood,<br>LL.B., University of Michigan, 1892. | Illinois. |
| Robert E. Woods,<br>A. B., Kentucky Military Institute, 1885.<br>A. M., Hartford College, 1889.<br>LL.B., Columbian University, 1892. | Kentucky. |
| Henry S. Woodward,<br>A. B., Yale, 1890.<br>LL.B., Columbian University, 1892. | District of Columbia. |

Graduate Students, . . . . . 92

**Senior Class.**

| Name. | Residence. |
|---|---|
| Perry Allen, | Massachusetts. |
| Charles H. Allender, | District of Columbia. |
| R. H. Alvey, | Maryland. |
| A. P. Anderson, | Colorado. |
| T. H. Anderson, | Kentucky. |
| S. U. Bailey, | New York. |
| S. P. Baldwin,<br>A. B., Dartmouth, 1892. | Ohio. |
| J. Walter Barber, | Indiana. |
| Harrison J. Barrett, | Maine. |
| Charles F. Beale,<br>A. B., Harvard, 1880. | New York. |
| J. C. Bell, | Colorado. |
| O. R. Blair, | New York. |
| J. C. Bowen, | Michigan. |
| J. C. Boykin, | Georgia. |
| A. G. Buhrman, | District of Columbia. |
| George F. Burba, | Kentucky. |

| Name. | Residence. |
|---|---|
| James W. Byler, | Missouri. |
| William I. Campbell, | Pennsylvania. |
| U. S. Catlett, | Tennessee. |
| W. J. Clark, | Alabama. |
| Green Clay, | Kentucky. |
| Alden M. Collins, | Virginia. |
| S. J. Collinsgin, | Maryland. |
| A. V. Cushman, | Massachusetts. |
| George F. Daggett, | Maine. |
| Frank E. Dennett, | Maine. |
| A. B., Bowdoin College, 1890. | |
| F. L. Dennie, | North Dakota. |
| George W. Drew, | District of Columbia. |
| John Joy Edson, Jr., | District of Columbia. |
| J. Wm. Ellis, | New York. |
| Ph. B., Cornell, 1890. | |
| E. L Eustaphieve, | Virginia. |
| F. De Courcy Faust, | District of Columbia. |
| James A. Finch, | New York. |
| L. H. Finney, Jr., | Virginia. |
| Albert F. Flint, | District of Columbia. |
| Charles F. Frailey, | Massachusetts. |
| A. B., Columbian University, 1891. | |
| Paul Trapier Gadsden, | South Carolina. |
| A. M., University of the South, 1891. | |
| Corydon Garrett, | Missouri. |
| Charles D. Geddes, | Minnsota. |
| W. G. Gideon, | Missouri. |
| George I. Gilbert, | Illinois. |
| A. B., Doane College, 1890. | |
| Horace D. Goodale, | New York. |
| Edward C. Goodwin, | New York. |
| O. W. Goodwin, | Wisconsin. |
| M. Le Roy Gough, | District of Columbia. |
| Irving H. Griswold, | Ohio. |
| H. M. Gunderson, | Wisconsin. |
| C. A. Hansmann, | Missouri. |
| Wm. E. Harvey, | Missouri. |
| John K. Hench, | Pennsylvania. |
| J. B. Henderson, Jr., | Missouri. |
| John A. Higley, | New York. |

| Name. | Residence. |
|---|---|
| Myron F. Hill, | Massachusetts. |
| A. B., Harvard, 1890. | |
| A. M., Haverford, 1891. | |
| W. B. Hoggatt, | Indiana. |
| Charles E. Howe, | Pennsylvania. |
| Kepler Hoyt, | Wyoming. |
| A. B., University of Denver, 1891. | |
| Malcolm Hufty, | District of Columbia. |
| A. L. Jackson, | Texas. |
| Sydney R. Jacobs, | Wisconsin. |
| Stephen Jannus, | District of Columbia. |
| J. Burr Johnson, | Maryland. |
| Ernest W. Jones, | Ohio. |
| Louis G. Julihn, | District of Columbia. |
| Wm. H. Keller, | Pennsylvania. |
| A. B., Franklin and Marshall College, 1891. | |
| W. Maurice Kelly, | Oregon. |
| A. B., Princeton, 1891. | |
| Messmore Kendall, | Colorado. |
| F. Henry Kiser, | Wisconsin. |
| H. Lee Landers, | Maryland. |
| B. Peyton Legaré. | South Carolina. |
| B. S., Hobart College, 1888. | |
| Harris Lindsley, | District of Columbia. |
| J. Arthur Lynham, | Virginia. |
| Charles L. McCawley, | District of Columbia. |
| J. T. Macey, | New York. |
| Walker D. Maclean, | Illinois. |
| A. B., Columbian University, 1891. | |
| R. L. Maddox, | Kentucky. |
| John T. Manier, | Mississippi. |
| B. S., A. and M. College of Mississippi, 1889. | |
| W. S. Maple, | Indiana. |
| R. Bowman Matthews, | Louisiana. |
| F. G. Mauldin, | South Carolina. |
| Graduate of U. S. Military Academy, 1890. | |
| Lloyd T. Meeds, | District of Columbia. |
| George Clendenin Meigs, | District of Columbia. |
| Edward Menocal, | District of Columbia. |
| Fred. Merritt, | Illinois. |
| J. G. Meyers, Jr., | District of Columbia. |

| Name. | Residence. |
|---|---|
| F. Dabney Miller, | Mississippi. |
| R. F. Miller, | District of Columbia. |
| George M. Moore, | Missouri. |
| J. N. Morrison, | Missouri. |
| Charles S. Muir, | District of Columbia. |
| W. Harvey Muzzy, | District of Columbia. |
| E. C. O'Brien, | New York. |
| F. C. O'Connell, | Vermont. |
| Wm. A. Pless, | Tennessee. |
| J. Garland Pollard, | Virginia. |
| John P. Pryor, | Texas. |
| Howard S. Reeside, | Pennsylvania. |
| Eugene Rhodes, | Kansas. |
| E. S. Rockwell, | New York. |
| Louis A. Rosafy, | North Carolina. |
| Morris E. Sabin, | Wisconsin. |
| F. F. Sams, | Illinois. |
| F. H. Sanford, A. B., Yale, 1889. | New York. |
| G. B. M. Schadmann, A. B., Racine College, 1886. A. M., Racine College, 1889. | Pennsylvania. |
| George H. Shields, Jr., A. B., Princeton, 1891. | District of Columbia. |
| Wm. F. Shute, | District of Columbia. |
| Carroll W. Smith, | District of Columbia. |
| Charles M. Smith, | Vermont. |
| D. L. Smith, A. B., Dartmouth, 1891. | New Hampshire. |
| Felix O. Smith, | Vermont. |
| Luther F. Speer, | Pennsylvania. |
| Bernard H. Taylor, | Illinois. |
| Frank Tharin, | South Carolina. |
| Corcoran Thom, | Maryland. |
| J. H. Thomas, | Missouri. |
| T. C. Thomas, | Ohio. |
| Christian A. Tingwold, | Minnesota. |
| Edward D. Tittmann, | Missouri. |
| Wm. Sydenham Torbert, | Maryland. |
| S. Brooks Townes, | South Carolina. |
| Addison C. Townsend, | Nebraska. |

| Name. | Residence. |
|---|---|
| Ralph R. Upton, | District of Columbia. |
| E. W. Van Dyke, | District of Columbia. |
| F. R. Vogelgesang, | Virginia. |
| M. A. Watson, | California. |
| Willoughby L. Webb, | Maryland. |
| Harry Weber, | Illinois. |
| Philip P. Wells, | Connecticut. |
| A. B., Yale, 1889. | |
| Irvin C. Williams, | Pennsylvania. |
| A. B., Ursinus College, 1891. | |
| Walter A. Wilson, | Ohio. |
| A. L. Wood, | New Jersey. |
| Windom S. Woodworth, | Virginia. |
| E. A. Wright, | Pennsylvania. |
| C. E., Lehigh, 1889. | |
| Fred. A. Wright, | Massachusetts. |
| A. B., Amherst, 1884. | |
| Herbert Wright, | Pennsylvania. |
| M. E., Lehigh, 1890. | |

Seniors, . . . . . 134

**Juniors.**

| Name. | Residence. |
|---|---|
| Fred. Achenbach, | Missouri. |
| T. A. Aiton, | District of Columbia. |
| Wm. H. Alexander, | Texas. |
| Edgar Allan, Jr., | Virginia. |
| John B. Allan, Jr., | Washington. |
| George R. Anderson, | Virginia. |
| S. B. Armat, | Virginia. |
| G. Grant Armor, | Texas. |
| Franklin E. Barrett, | District of Columbia. |
| Richard W. Barrett, | Ohio. |
| W. W. Bedford, | California. |
| Edwin S. Bethel, | Illinois. |
| W. R. Blackford, | District of Columbia. |
| B. S., Columbian University, 1892. | |
| George H. Brown, Jr., | Illinois. |
| George L. Browning, | Virginia. |
| Joseph A. Burkart, | District of Columbia. |

| Name. | Residence. |
|---|---|
| George H. Chandlee, | District of Columbia. |
| Willoughby S. Chesley, | Maryland. |
| J. M. Coit, | South Carolina. |
| B. S., University of South Carolina, 1891. | |
| M. Argyle Coles, | Virginia. |
| A. B., Richmond College, 1888. | |
| P. I. Coryell, | New Jersey. |
| P. S. Crowe, | Indiana. |
| Allen A. Davis, | Tennessee. |
| A. B., S. W. B. University, 1891. | |
| M. Mason Davis, | Virginia. |
| Fred. Dennett, | North Dakota. |
| F. W. Denniston, | Pennsylvania. |
| A. G. Dingley, | Maine. |
| A. B., Yale, 1892. | |
| Frederic S. Doyle, | Pennsylvania. |
| C. V. Edwards, | District of Columbia. |
| Selden M. Ely, | Virginia. |
| M. E., S. N. School, Indiana, Pa., 1888. | |
| Fred. A. Emery, | District of Columbia. |
| Wm. H. Ernul, | North Carolina. |
| Paul Finckel, | District of Columbia. |
| Cary S. Fry, | Indiana. |
| H. Prescott Gatley, | District of Columbia. |
| Harvey Given, | District of Columbia. |
| Ralph Given, | District of Columbia. |
| Henry H. Glassie, | Tennessee. |
| A. B., Johns Hopkins, 1892. | |
| Jesse P. Gram, | Ohio. |
| Ph. B., Oberlin College, 1892. | |
| James M. Gray, | Nebraska. |
| Thomas Gresham, | Virginia. |
| John S. Grisard, | Ohio. |
| John N. Griswold, | New York. |
| Harry C. Grove, | West Virginia. |
| H. H. Hanson, | New Hampshire. |
| A. B., Dartmouth, 1886. | |
| W. T. Hastings, | Nebraska. |
| Walter R. Hensey, | District of Columbia. |
| A. H. Hiller, | Michigan. |
| Ph. B., Hillsdale, Mich., 1889. | |

| Name. | Residence. |
|---|---|
| H. E. Hinnan, | District of Columbia. |
| Frank H. Hitchcock, | Massachusetts. |
| A. B., Harvard, 1891. | |
| Francis C. Huebner, | Ohio. |
| Guy Hamilton Johnson, | District of Columbia |
| Frank Kyselka, | Michigan. |
| C. H. Lauchheimer, | Maryland. |
| Graduate U. S. Naval Academy, 1881. | |
| Hedding B. Leech, | District of Columbia. |
| H. T. A. Lemon, | District of Columbia. |
| Reeve Lewis, | District of Columbia. |
| H. H. Logan, | District of Columbia. |
| James J. McEvilly, | Montana. |
| L. M. Marble, | District of Columbia. |
| E. B. Markham, | District of Columbia. |
| C. L. Marlatt, | Kansas. |
| M. S., Kansas Agricultural College, 1887. | |
| Wm. C. Mayo, | Virginia. |
| H. C. Mead, | Florida. |
| Joseph T. Miller, | Pennsylvania. |
| George A. H. Mills, | District of Columbia. |
| Henry Mohler, | District of Columbia. |
| O. S. Moncure, | Virginia. |
| Franklin Moore, | District of Columbia. |
| Gales P. Moore, | District of Columbia. |
| Arthur C. Moses, | District of Columbia. |
| L. D. Manigault Mowry, | South Carolina. |
| H. L. Muldrow, | Mississippi. |
| Harry B. Needham, | Illinois. |
| D. E. North, | Pennsylvania. |
| John O'Connell, | Wisconsin. |
| James A. Oldfield, | West Virginia. |
| R. H. Orr, | Delaware. |
| Ezra D. Parker, | Pennsylvania. |
| F. V. Parker, | Pennsylvania. |
| F. R. Parks, | District of Columbia. |
| Sterling Parks, | Ohio. |
| A.B., University of Michigan, 1888. | |
| E. H. Parry, | Connecticut. |
| S. V. Peck, | Iowa. |
| C. T. Richardson, | District of Columbia. |

| Name. | Residence. |
|---|---|
| J. B. Russell, | District of Columbia. |
| Robert L. Russell, | Georgia. |
| Graduate U. S. Naval Academy, 1885. | |
| Walter H. Ryland, | Virginia. |
| A. B., Richmond College, 1891. | |
| Harold N. Saxton, | New York. |
| Rudolph B. Schwichardi, | Virginia. |
| John C. Scofield, | Georgia. |
| A. B., Middlebury College. | |
| Charles F. Sensner, | District of Columbia. |
| H. C. Sheridan, | District of Columbia. |
| W. W. Smith, | District of Columbia. |
| J. D. Smoot, | District of Columbia. |
| B. W. Sommers, | District of Columbia. |
| A. D. Spangler, | Pennsylvania. |
| F. M. Starkweather, | Wisconsin. |
| Robert A. Stickney, | Florida. |
| Clifford M. Stoy, | District of Columbia. |
| Julius W. Stuart, | South Carolina. |
| Harry C. Surguy, | Ohio. |
| Albert V. Taylor, | Ohio. |
| Walter C. Taylor, | District of Columbia. |
| S. E. Tracy, | Texas. |
| Edward P. Tribble, | Kentucky. |
| W. C. Valentine, | Nebraska. |
| H. J. Van Der Beek, | New York. |
| Horace G. Van Everen, | New York. |
| A. B., Cornell, 1891. | |
| Wm. W. Watson, | Indiana. |
| Edgar V. Werner, | Wisconsin. |
| W. F. Williams, | Louisiana. |
| John C. Wilson, | Maryland. |
| J. R. Wise, | Wisconsin. |
| B. L., University of Wisconsin, 1888. | |

Juniors, . . . . . 114

**Special Students in the Law of Patents.**

| Name. | Residence. |
|---|---|
| F. S. Appleman, LL.B., Georgetown University, 1892. | District of Columbia. |
| Charles F. Benjamin, | District of Columbia. |
| F. J. Benjamin, | District of Columbia. |
| George N. Goddard, | Connecticut. |
| F. U. Hayden, | District of Columbia. |
| Patrick O'Farrell, | District of Columbia. |
| George M. Whitney, | District of Columbia. |
| Walter H. Wills, | District of Columbia. |

Special Students, . . . . . 8

**Recapitulation.**

| | |
|---|---|
| Graduates, . . . . . | 92 |
| Seniors, . . . . . | 134 |
| Juniors, . . . . . | 114 |
| Special Students, . . . . . | 8 |
| | 348 |

# THE MEDICAL SCHOOL.

**The Faculty.**

JAMES C. WELLING, LL.D.,
President.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery.

W. W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine.

A. F. A. KING, A. M., M. D.,
Professor of Obstetrics and the Diseases of Women and Children, and Dean of the Faculty.

WILLIAM LEE, M. D.,
Professor of Physiology.

D. W. PRENTISS, A. M., M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, A. M., Ph. D.,
Professor of Chemistry and Toxicology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Pædiatrics.

H. L. E. JOHNSON, M. D.,
Professor of Gynecology.

THOMAS E. McARDLE, A. M., M. D.,
Professor of Minor Surgery.

THEOBALD SMITH, M. D.,
Professor of Bacteriology and Hygiene.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology.

A. CLARK PATTERSON, M. D.,
Professor of Mental Diseases.

---

**Clinical Professors.**

J. FORD THOMPSON, M. D.,
Clinical Professor of Surgery.

WILLIAM W. JOHNSTON, M. D.,
Clinical Professor of Medicine.

GEORGE N. ACKER, M. D.,
Clinical Professor of Medicine.

E. L. TOMPKINS, M. D.,
Clinical Professor of Diseases of the Nervous System.

H. L. E. JOHNSON, M. D.,
Clinical Professor of Diseases of Women.

SAMUEL S. ADAMS, M. D.,
Clinical Professor of Diseases of Children.

WILLIAM K. BUTLER, M. D.,
Clinical Professor of Diseases of the Eyes.

CHARLES W. RICHARDSON, M. D.,
Clinical Professor of Laryngology and Otology.

**Demonstrators.**

G. N. ACKER, A. M., M. D.,
Demonstrator of Pathological Histology.

WILLIAM P. CARR, M. D.,
Demonstrator of Anatomy.

WILLIAM M. GRAY, M. D.,
Demonstrator of Normal Histology.

VERANUS A. MOORE, B. S., M. D.,
Assistant Demonstrator of Pathological Histology.

STERLING RUFFIN, M. D.,
GLENDIE B. YOUNG, M. D.,
LOUIS MACKALL, JR., M. D.,
JOHN VAN RENSSELAER, M. D.,
Assistant Demonstrators of Anatomy.

WILLIAM F. R. PHILLIPS, M. D.,
THEODORE E. OERTEL, M. D.,
Prosectors of the Chair of Anatomy.

JOHN VAN RENSSELAER, M. D.,
JOHN R. WELLINGTON, M. D.,
Demonstrators of Minor Surgery.

JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
Clinical Assistants.

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The building in which the Medical School holds its sessions, the munificent gift of the late WILLIAM W. CORCORAN, is situated on H street between Thirteenth and Fourteenth streets, only a few steps from the main University Building. It has recently been enlarged and renovated.

The School has a museum containing a valuable collection, and is provided with other appointments suitable for the purposes of medical, anatomical, and surgical study.

The plan of instruction comprises a complete course of scholastic lectures in the seven essential branches of medical science, viz., Anatomy, Physi-

ology, Materia Medica, Chemistry, Surgery, Obstetrics, and the Theory and Practice of Medicine; and, conjoined with this, ample opportunities are afforded for bedside instruction, by which the general principles taught in the lecture-room can be verified and practically illustrated in the various modes of examining patients, analyzing symptoms, and arriving at a correct diagnosis and prognosis of any case that may be presented. In like manner are taught the art of prescribing medicines and of observing their effects, the mode of performing surgical operations, etc.

In addition to full sets of diagrams to illustrate the subjects considered by the several Chairs, the School has provided a sciopticon or lantern, which enables the lecturer to give the class faithful and exact (photographic) views of both normal and pathological structures. Practical laboratory instruction will be given during the session in Normal and Pathological Histology and Chemistry. The laboratory is supplied with microscopes and with the necessary appliances for the study of these subjects.

The course in Normal Histology is open to students during the first and second years of their tuition, and the course in Pathological Histology to third-year students only. Both these courses constitute a necessary part of college work, and attendance upon them is not optional, but obligatory.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Surgery.

PROFESSOR J. FORD THOMPSON, M. D.,

One of the Attending Surgeons to the Children's Hospital, to the Garfield General Hospital, and to the Columbia Hospital for Women.

The principles and practice of Surgery are taught from this Chair, both by didactic lectures and clinical instruction. Orthopedic Surgery and Diseases of the Genito-Urinary system are included in this course.

As Professor THOMPSON is the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Effort is made to teach Surgery in accordance with the latest developments of scientific research. At the College operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner. A collection of colored models of life size, illustrating Surgical Anatomy, forms a feature of the Surgical course.

MINOR SURGERY.—Practical class instruction will be given by Professor MCARDLE and his Assistants in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### Theory and Practice of Medicine.

PROFESSOR W. W. JOHNSTON,

One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes which occur in many diseases and to which all the structures of the body are liable. General or constitutional diseases and local diseases or diseases of organs are described in order.

As the subjects taught from the Chair are so numerous and cover so wide a field, two years are required to complete the course. The lectures of each year therefore form a distinct and complete series, and it is necessary for the student to follow attentively the lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress and are absolutely necessary to a complete understanding of the studies of this Chair.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

### Obstetrics and the Diseases of Women and Children.

PROFESSOR A. F. A. KING, A.M., M.D.,

One of the Consulting Physicians to the Children's Hospital and Obstetrician to the Columbia Hospital for Women.

This course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin for demonstrating obstetrical operations has been added to the illustrative apparatus.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

### Physiology.

PROFESSOR WILLIAM LEE, M.D.,

One of the Attending Physicians to the Central Dispensary and Emergency Hospital.

This Course of Lectures consists of a full, clear, and practical exposition of Physiology, aided as far as possible by experiments, vivisections, and diagrams. The more fully to impress upon the memory of the student the important principles embraced in this valuable part of his curriculum, reviews will be held from time to time in the form of class examinations. The course will be confined strictly to Physiology, with a view to cover the whole ground occupied by this branch.

### Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A.M., M.D.,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence is given to the physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical Relations of the Materia Medica is not overlooked, but time does not admit of their being considered in great detail in the lecture-room. They are, rather, proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick-room.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

### Anatomy.

PROFESSOR D. KERFOOT SHUTE, A.B., M.D.,

Ophthalmic Surgeon to the Washington Hospital for Foundlings.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to qualify one for the practice of medicine may be acquired during the two courses of lectures from this Chair, which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the Surgical and Medical Relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the lecturer from time to time.

Drs. WILLIAM F. R. PHILLIPS and THEODORE E. OERTEL, Prosectors to the Chair of Anatomy, will prepare the subject for the lecturer.

Dr. WILLIAM P. CARR, Demonstrator of Anatomy, and his assistants, Drs. RUFFIN, YOUNG, MACKALL, and VAN RENSSELAER, give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of the College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, sufficient to cover only the expense of procuring and preparing it. The room is open during both by day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

## Chemistry and Toxicology.

PROFESSOR EMIL A. DE SCHWEINITZ, A. M., PH. D.,

Chemist in the United States Department of Agriculture.

The instruction in this Department embraces:

1st. A discussion of the elementary bodies, metallic and non-metallic, and their important compounds, the best methods of preparing them and detecting their presence.

This also includes a study of the principles of chemical philosophy, the general laws of chemical affinity and combinations.

2d. THE CHEMISTRY OF THE CARBON COMPOUNDS.—Organic chemistry will be considered with special reference to those substances most useful

to the physician—organic acids and their salts, alkaloids, etc. Stress is laid upon Toxicology, and the tests and antidotes for the various poisons are studied.

3d. Laboratory instruction is given in the Methods of Qualitative and Quantitative Analysis, with special reference to their application to medicine.

4th. Facilities for advanced work in Bio-Chemistry will be afforded.

### Lectures on Special Subjects.

DERMATOLOGY.—Professor YARROW will give a course of lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

PÆDIATRICS.—Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

GYNECOLOGY.—The diseases peculiar to women will receive special attention from Professor H. L. E. JOHNSON, in charge of the department of Gynecology, Central Dispensary and Emergency Hospital, who will illustrate this course by clinical demonstrations at the Hospital.

MINOR SURGERY.—This course will consist of practical instruction under the direction of Professor MCARDLE, assistant physician, Children's Hospital, and his assistants. The students will apply the various splints, bandages, surgical dressings, etc., for themselves.

BACTERIOLOGY AND HYGIENE.—Bacteriology is of great scientific interest, dealing, as it does, with the etiology of many pathological processes.

The importance of hygienic conditions in the treatment and prevention of disease will be fully considered in this course. The purity of water, air, foods, etc., and the methods by which such purity is determined will receive particular attention. These subjects will be taught conjointly by Professor THEOBALD SMITH.

OPHTHALMOLOGY.—Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

MEDICAL JURISPRUDENCE.—Professor RUFFIN'S course will deal with the relations of physicians to matters of legal investigation, and the students will be taught how expert testimony is given and how physicians should conduct themselves as witnesses.

LARYNGOLOGY AND OTOLOGY.—This course will comprise lectures on diseases of the nasal passages, pharynx and larynx, and also of the ear. Professor RICHARDSON, Laryngologist to the Providence Hospital, will give

practical instruction in the use of the laryngoscope and other instruments required in this special branch.

MENTAL DISEASES.—Professor PATTERSON, one of the resident physicians at the Government Hospital for the Insane, will deal with the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

HISTOLOGY AND PATHOLOGICAL HISTOLOGY.—Practical laboratory instruction will be given on these subjects:

Dr. WM. M. GRAY, of the United States Army Medical Museum, will conduct a course of practical instruction in Normal Histology in connection with the Chair of Physiology. In this course students will have the opportunity to become familiar with the use of the microscope and with the minute anatomy of the tissues and organs of the body.

Dr. G. N. ACKER will give a course in Pathological Histology, in which will be shown the principal tissue alterations found in disease.

The course in Normal Histology is open to students during the first and second years of their tuition, and the course in Pathological Histology to third-year students only. Both these courses constitute a necessary part of college work, and attendance upon them is not optional with the student, but obligatory.

### Clinical Instruction.

GARFIELD HOSPITAL.—Clinical lectures will be given regularly during the session by Professor J. FORD THOMPSON on Surgery and by Professor G. N. ACKER on Medicine. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, J. FORD THOMPSON, and S. S. ADAMS. An opportunity is here afforded of observing all the diseases, injuries, etc., to which children are liable, whether treated medicinally or surgically. The dispensary service of the hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors WILLIAM LEE, in charge of the department of general medicine and nervous diseases, and H. L. E. JOHNSON, in charge of the department of diseases of women, will conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

**Requirements for Matriculation and Graduation.**

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either present a satisfactory certificate of their attainments from some college or submit to an examination, which will require an English composition in the handwriting of the applicant, of not less than two hundred words, and an examination in Higher Arithmetic, Algebra, Elementary Physics, and Latin Prose.

Students conditioned in one or more of the branches enumerated as requirements for Matriculation shall have time, until the beginning of the second year, to make up such deficiencies, provided, however, that students who fail in any of the required branches in this second examination shall not be admitted to a second course.

II. Candidates for the degree of Doctor of Medicine must have attended three * courses of lectures, the subjects to be arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, Practical Anatomy, and Histology. Minor Surgery, Bacteriology, and Hygiene.

SECOND YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery, Obstetrics, Gynecology, Laryngology, Otology, and Pædiatrics. Clinics, Histology, Practical Anatomy.

THIRD YEAR.—Practice of Medicine, Surgery, Obstetrics, Ophthalmology, Dermatology, Mental Diseases, and Medical Jurisprudence. Clinics, Pathological Histology.

III. Students of other institutions who have attended one course of lectures in any regular medical school will be placed upon the same footing with those who have attended one course in this College; and those who have attended two courses of lectures in any other regular college or colleges will rank with those who have attended two courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted as third-course students after passing a satisfactory examination on the four primary branches of Anatomy, Physiology, Chemistry, and Materia Medica.

IV. Candidates for graduation must have studied medicine three years, or the term of three years' study must be completed at a date not exceeding three months after the period of the final examination. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have practised dissection for at least two sessions, during each of which he shall be required to dissect two "parts"

* It is most probable that the next issue of the Medical Announcement, for the session of 1893-'94, will require *four* annual courses of lectures instead of *three*.

of a subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will be both written and oral. The examination for the Degree will be held at the end of the session, in April. Students who fail to pass the examination in April may be re-examined in October, if, in the judgment of the Faculty, they have shown the proficiency requisite to render such a course advisable. The diploma is granted only at the Annual Commencement, in May.

VII. Graduates of other accredited medical colleges must pass a satisfactory examination on all of the seven essential branches of medicine before receiving a diploma from this University.

### Prizes.

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination.

The Faculty will also award two additional prizes. one for proficiency in "*Clinical Medicine*" and one for proficiency in "*Clinical Surgery.*"

### Fees, Regulations, etc.

| | |
|---|---|
| Matriculation Fee, payable only once | $5 00 |
| Single Tickets | 15 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Examination Fee (not returnable, but payable once only), Primary Branches | 20 00 |
| Examination Fee (not returnable, but payable once only), Final Branches | 10 00 |

No fee for Graduating Expenses.

In conformity with the foregoing regulations the expense for each of the three courses is as follows:

| First Course: | |
|---|---|
| Matriculation Fee | $5 00 |
| Four Primary Tickets | 60 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Total | $75 00 |

| | |
|---|---|
| SECOND COURSE: | |
| Four Primary Tickets | $60 00 |
| Three Final Tickets | 45 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Examination Fee (Primary Branches) | 20 00 |
| Total | $135 00 |
| THIRD COURSE: | |
| Three Final Tickets | $45 00 |
| Examination Fee (Final Branches) | 10 00 |
| Total | $55 00 |

No charge will be made to matriculants for the courses of practical instruction in the Laboratory on Normal and Pathological Histology *nor for Clinical Lectures.** Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Dean to suit the convenience of the student.*

By virtue of a liberal endowment from the late Mr. W. W. CORCORAN, this College is enabled to offer six free Scholarships, which are under the supervision of the Columbian University. Applicants for the privileges of this endowment must produce a certificate from the authorities of the University that they have been fitted by previous education for the study of medicine. Applications should be addressed to the Dean and sent in not later than the end of September, accompanied with written evidence of pecuniary inability and certificates of moral character and industry. This is the only mode by which any deduction can be made from the regular fees, except as hereinafter stated.

Graduates of other accredited medical colleges after five years are required to matriculate only. Prior to the expiration of five years the fee for a general ticket is $50.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from $12 to $30 per month, and rooms may be obtained for $10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at No. 1325 H street N. W., and is within half a square of three lines of street cars, going to every part of the city.

Students desiring further information are requested to address the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,
*1315 Massachusetts Avenue N. W., Washington, D. C.*
Telephone, 885.

*A nominal fee of $5 is charged by some of the hospitals.

### Text Books and Works of Reference.

ANATOMY.—*Gray's Anatomy*,* Quain's Anatomy, Descriptive and Surgical; Holden's Manual of Dissection.

PHYSIOLOGY.—*Landois'*, Dalton's, or Flint's Physiology, Foster and Langley's Practical Physiology, Rutherford's Practical Histology.

CHEMISTRY.—Richter's, Attfield's, Bloxam's, or Fowne's Chemistry, Bowman's Medical Chemistry, Witthaus' Chemistry, and Remsen's Organic Chemistry.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*, National Dispensary, Edes' Therapeutics.

SURGERY.—*Ashurst's*, Gross' System of Surgery, Erichsen's or Druitt's Surgery.

PRACTICE OF MEDICINE.—Loomis' Practice, Osler's Practice, Syst. of Medicine (Pepper), Da Costa's Medical Diagnosis.

OBSTETRICS.—*Playfair's*, Leishman's, or Lusk's Obstetrics, King's Manual, *Thomas and Mundé* on Diseases of Women, *J. Lewis Smith*, or W. H. Day, or Meigs and Pepper on Diseases of Children, and Skene on Diseases of the Female Bladder and Urethra.

PATHOLOGICAL ANATOMY AND HISTOLOGY.—Green's Pathology, Frey's or Stricker's Histology, Rindfleisch's Pathological Histology, Cornil and Ranvier, Ziegler's Pathological Anatomy, Delafield and Prudden's Pathological Anatomy.

*Gould's Medical Dictionary*, Thomas' Medical Dictionary.

### Students of Medicine.

| Name. | Residence. |
|---|---|
| Ashby E. Bain, | Texas. |
| May D. Baker, | Kansas. |
| Frank A. Barbour, | District of Columbia. |
| Hugh W. Beatty, M. D., | Kansas. |
| Walter K. Beatty, | District of Columbia. |
| John W. Bennett, | District of Columbia. |
| Louisa M. Blake, | New Jersey. |
| Fred. M. Bogan, | District of Columbia. |
| Archie W. Boswell, | District of Columbia. |
| Frank C. Boyle, | District of Columbia. |
| Fannie C. Brewer, | Maryland. |

* The works first named and in *italics* are preferred.

| Name. | Residence. |
|---|---|
| Isaac W. Brewer, | New York. |
| Mary A. Brosius, | Pennsylvania. |
| William C. Buck, | New Hampshire. |
| Paul V. Bunn, | North Carolina. |
| Dewitt C. Chadwick, | Ohio. |
| James R. Church, | District of Columbia. |
| Edgar F. Conant, | Maine. |
| Martha E. Conklin, | New York. |
| Henry K. Craig, | Maine. |
| William G. Crounse, | Nebraska. |
| Alice S. Crush, | District of Columbia. |
| Ellen L. Cudlip, | District of Columbia. |
| John M. Cunningham, | Illinois. |
| George R. Currier, | Maine. |
| John Dale, | Pennsylvania. |
| Robert A. Daniel, | District of Columbia. |
| Edward Y. Davidson, | Virginia. |
| William E. Davis, | Maryland. |
| Joseph C. Davison, | New Jersey. |
| Henry J. Decker, | New York. |
| William H. Dobson, | Pennsylvania. |
| Alonzo B. Eaton, | Massachusetts. |
| Middleton S. Elliott, | South Carolina. |
| Merton J. Emerson, | Illinois. |
| Rudolph H. Ezdorf, | Pennsylvania. |
| James M. Fairly, | Mississippi. |
| Warren Dexter Fales, | Illinois. |
| Fred. O. Fish, A. B., | Maine. |
| Henry Z. Fish, | Kansas. |
| Gailliard S. Fitzsimons, | South Carolina. |
| W. Ashby Frankland, | Virginia. |
| Nathaniel E. Fugitt, | Maryland. |
| Orange C. Gilliland, | Illinois. |
| Mary E. Graves, | District of Columbia. |
| Thomas A. Griffin, | Virginia. |
| Alfred G. Grunwell, | Virginia. |
| John W. Gue, | Illinois. |
| Oscar J. Gwynn, | Colorado. |
| Francis R. Hagner, | District of Columbia. |
| James R. Hamilton, | Texas. |
| Bernard L. Hardin, B. S., | Virginia. |

| Name. | Residence. |
|---|---|
| Ralph A. Harding, | District of Columbia. |
| Cornelius A. Harper, | Wisconsin. |
| Wallace C. Harry, | District of Columbia. |
| Henry M. Haynes, | Texas. |
| William E. Hertford, | District of Columbia. |
| John W. Higdon, Jr., | District of Columbia. |
| John Kirkland Hill, A. B., | North Carolina. |
| Almer M. Hoadley, | District of Columbia. |
| Abram B. Hooe, | Virginia. |
| Charles J. Hopkins, | District of Columbia. |
| Charles N. Howard, | Pennsylvania. |
| Deane C. Howard, | Massachusetts. |
| Harry W. Howell, | District of Columbia. |
| Montgomery Hunter, | Virginia. |
| Joseph E. Hurst, | Canada. |
| Virgil B. Jackson, | Virginia. |
| Joseph R. Johnson, | Virginia. |
| Lincoln Johnson, | New York. |
| Robert A. Johnson, | Illinois. |
| Sidney L. Johnson, | District of Columbia. |
| Fred. F. Jones, | Ohio. |
| James T. Jones, | District of Columbia. |
| Arthur Jordan, D. D. S., | California. |
| Llewellyn Jordan, | Mississippi. |
| Ulysses S. G. Keller, | Pennsylvania. |
| Cassius M. Ketcham, | Missouri. |
| Carolyn I. Kiefe, | Massachusetts. |
| William A. Kinnan, | Michigan. |
| Frank A. Kirby, | Massachusetts. |
| Herbert D. Knapp, | Michigan. |
| Van Buren Knott, | Iowa. |
| Alice K. Koogle, B. S., | Ohio. |
| Mary A. Law, | Kansas. |
| George W. Leadley, | New York. |
| Julius Lemkowitz, | Georgia. |
| Hanson T. A. Lemon, | District of Columbia. |
| Victor A. Lewis, | Maryland. |
| Zebulon Llowe, | Maryland. |
| David Lobo, M. D., | Venezuela. |
| Matthew O'R. Loveaire, | District of Columbia. |
| Kate E. Lozier, | Connecticut. |

| Name. | Residence. |
|---|---|
| L. Fleet Luckett, | District of Columbia. |
| J. Julius Lund, | Illinois. |
| William E. Magruder, | Maryland. |
| William A. Martin, | Illinois. |
| William L. Masterson, | Ohio. |
| William W. Matthews, | Louisiana. |
| Sherman D. Maynard, B. S., | New York. |
| Frank A. Mazzie, | District of Columbia. |
| Thomas J. McEttrick, | Massachusetts. |
| James S. McIlhenny, | District of Columbia. |
| George N. McLoughlin, | Tennessee. |
| Eaton K. McNeil, | Tennessee. |
| Homer S. Medford, | District of Columbia. |
| Harry S. Millstead, | Virginia. |
| Francis H. Miner, | New Hampshire. |
| John W. Morgan, | District of Columbia. |
| Edward Mower, | Connecticut. |
| Andrew J. Nelson, | Virginia. |
| Francis M. Nesmith, | New York. |
| William S. Newell, | Indiana. |
| Sofie A. Nordhoff, | Germany. |
| Josie Craig Parsons, | Illinois. |
| Herbert W. Porter, | Connecticut. |
| Margaret S. Potter, | Pennsylvania. |
| George T. Prewitt, | Texas. |
| Clarence G. Probert, | Ohio. |
| Alexander H. Quarles, | Georgia. |
| Tunis C. Quick, | Virginia. |
| David E. Quinn, Ph. G., | Ohio. |
| Arthur C. Rauterburg, | District of Columbia. |
| Joseph O. Reed, | Massachusetts. |
| Delos N. Reeve, | Iowa. |
| Victor B. Rench, | Maryland. |
| Theodore W. Richards, | District of Columbia. |
| Edward E. Richardson, | Vermont. |
| John H. Rindlaub, | Wisconsin. |
| Harry W. Rollins, | District of Columbia. |
| John B. Sacasa, | Nicaragua. |
| William N. Sayre, LL.M., | Oregon. |
| Edward G. Seibert, | Pennsylvania. |
| Henry H. Seltzer, | Pennsylvania. |

| Name. | Residence. |
|---|---|
| Thomas M. Shepherd, | District of Columbia. |
| Nellie H. Shipman, | Ohio. |
| Percy G. Smith, Ph. G., | Maryland. |
| Homer L. Spaulding, | Kansas. |
| Lemuel J. Stanton, | Iowa. |
| Mary C. Stanton, | Iowa. |
| John Hamilton Stone, A. B., | District of Columbia. |
| John Thompson, | District of Columbia. |
| J. Ford Thompson, Jr., | District of Columbia. |
| William J. R. Thönssen, M. D., | Texas. |
| Fred. S. Towle, | Massachusetts. |
| Herbert S. Town, | Wisconsin. |
| Robert S. Trimble, | Maryland. |
| James R. Tubman, | District of Columbia. |
| William A. Tyler, | Nebraska. |
| Denny S. Verdi, | District of Columbia. |
| Mays M. Warren, B. S., B. A., | Tennessee. |
| William S. Washburn, | New York. |
| Richard Washington, | District of Columbia. |
| Gottlieb Wehrle, B. S., | Wisconsin. |
| William O. Wetmore | District of Columbia. |
| Thomas A. Whittington, | Nebraska. |
| Henry C. Wire, M. D., | Ohio. |
| Edwin P. Wolfe, | Iowa. |
| Walter M. Wooster, | District of Columbia. |
| Margaret M. York, | Louisiana. |
| Charles L. Young, | Pennsylvania. |

Students of medicine, . . . . . 161

# THE DENTAL SCHOOL.

**Faculty.**

JAMES C. WELLING, LL. D.,
President.

J. HALL LEWIS, D. D. S.,
Professor of Dental Prosthetics.

HENRY C. THOMPSON, D. D. S.,
Professor of Operative Dentistry.

EMIL A. DE SCHWEINITZ, A. M., PH. D.,
Professor of Chemistry.

WILLIAM LEE, M. D.,
Professor of Physiology.

W. D. PRENTISS, A. M., M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

WILLIAM P. CARR, M. D.,
Demonstrator of Anatomy.

J. R. HAGAN, D. D. S.,
Demonstrator in Charge of Infirmary.

SIGEL ROUSH, A. M., M. D., D. D. S.,
Assistant Demonstrator.

**Clinical Operators.**

R. B. DONALDSON, D. D. S.
H. B. NOBLE, SR., D. D. S.
J. CURTIS SMITHE, D. D. S.
L. C. F. HUGO, D. D. S.
W. S. HARBAN, D. D. S.
WILLIAMS DONNALLY, D. D. S.

The regular Course of Lectures begins on October 1st and continues seven months.

The Faculty of the Dental Department of this University, convinced that less than three years of study and instruction is insufficient properly to prepare any one for the practice of Dentistry in its present state of advancement, announce that in order to become eligible for graduation the student must attend three full courses of seven months each, held in different years, with such exceptions as are hereinafter stated.

The subjects of the several courses are arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry, and Materia Medica, together with Practical Anatomy, Histology, and such Infirmary work as is suitable for first-year students.

SECOND YEAR.—The subjects of the first year are continued, and to these are added Operative Dentistry and Prosthetic Dentistry, with more advanced Infirmary work.

At the end of the second year the student may be examined on Anatomy, Physiology, Chemistry, and Materia Medica.

THIRD YEAR.—This year is devoted exclusively to Operative and Prosthetic Dentistry. Examination on these branches at the end of the Term.

As, however, no amount of scientific attainment can compensate for lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished throughout with Morrison chairs and all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of Clinical experience.

A large, comfortable, and well-lighted dental laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe-keeping of instruments belonging to the students.

The extracting-room is separate from the others, and is fitted up for the proper administration of the various anæsthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. J. R. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the

operations of the students, who thus have the benefit of his many years experience in Dental Practice.

The Infirmary is open every week day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of Clinical material is readily available; in fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of twenty-seven months' actual practice in the Infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Prosthetic Dentistry and Metallurgy.

PROFESSOR J. HALL LEWIS, D. D. S.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered, and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught, and Bridge-work, the construction of appliances for correcting Oral Irregularities, Interdental Splints for Fractures, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor LEWIS will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual, every-day practice of Prosthetic Dentistry.

### Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR HENRY C. THOMPSON, D. D. S.

This Course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

### Physiology.

PROFESSOR WILLIAM LEE, M. D.

This Course of Lectures will consist of a full, clear, and practical exposition of Physiology, aided as far as possible by experiments, vivisections, and diagrams. The more fully to impress upon the memory of the student the important principles embraced in this valuable part of his curriculum, reviews will be held from time to time in the form of class examinations. The course will be confined strictly to Physiology, with a view to cover fully the whole ground occupied by this branch. Due attention will be paid by this Chair to the study, with the microscope, of Normal Histology.

### Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A. M., M. D.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and black-board illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

### Anatomy.

PROFESSOR D. KERFOOT SHUTE, A. B., M. D.

This Course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The Lectures will be illustrated by frequent referenee to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

Drs. WILLIAM F. R. PHILLIPS and THEODORE E. OERTEL, Prosectors to the Chair of Anatomy, will prepare the subject for the Lecturer.

Dr. WILLIAM P. CARR, Demonstrator of Anatomy, and his assistants, Drs. RUFFIN, YOUNG, MACKALL, and VAN RENSSELAER, give their personal attention to the students in the dissecting-room.

### Practical Anatomy.

The Dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present at stated hours to give his personal attention to the students and properly instruct his classes in their dissections.

### Chemistry.

PROFESSOR EMIL A. DE SCHWEINITZ, A. M., PH. D.

The instruction in this Department embraces:

1. A discussion of the elementary bodies, both metallic and non-metallic; their compounds and the best methods of preparing them; their properties and reactions, and the means of detecting their presence. Special stress will be laid upon those elements and their compounds that are of importance to dental Surgery.

2. The Course also includes a study of the principles of Chemical Philosophy, the laws of chemical combinations, and of chemical affinity in general.

3. Facilities for practical laboratory work will be provided. The principles of the science are abundantly illustrated by experiments.

### Clinical Operations.

One evening in each week a member of the Corps of Clinical Operators will lecture upon some subject of general interest in Dentistry, and upon the following Saturday, whenever admissible, will give in the Infirmary a practical demonstration of the subject mentioned.

Special attention is called to the fact that the members of the Clinical Corps take an active part in the College instruction, each member giving several Lectures on special subjects during the Winter Course, besides holding Clinics at the Infirmary.

### Requirements for Matriculation and Graduation.

1. *Matriculants* will be required to show, either by examination or by the exhibit of a diploma or certificate from some reputable literary institution, that they have received a good English education.

2. *Candidates for Graduation* must have attended three full Courses of Lectures, each of SEVEN * months' duration, and three courses of Clinical instruction in this institution during the regular winter term and in separate years.

*Graduates* from *foreign* Medical Schools (other than those in Canada) will have the same privileges as are accorded second-year students in this College, with the additional provision that they will be given a reëxamination on the four primary branches on beginniug said second year. Should this examination be satisfactory, no further study of the primary branches will be required; but should the examination not be satisfactory, the applicant must study all branches under the same conditions as defined for second-year students of this College.

Students, however, who have attended *one* full course in some reputable Dental or Medical College will be admitted with the same privileges and be subject to the same requirements as are prescribed for our own second-year students.

Graduates in Medicine from reputable Medical Schools in the United States and Canada and Medical students who have passed their examination on the four primary branches of Anatomy, Chemistry, Physiology, and Materia Medica in any of said Medical Schools need not be reëxamined on these primary branches on entering this College.

Before becoming eligible for graduation they must take two full courses upon Operative and Prosthetic Dentistry and follow the requirements prescribed for our second-year students.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary* and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall be afterwards deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

* This rule applies only to those who matriculated after March, 1892.

## Fees, Regulations, etc.

| | |
|---|---|
| Matriculation (payable once only) | $5 00 |
| Full course of Lectures on all Branches | 90 00 |
| Demonstrator of Anatomy | 10 00 |
| Single Tickets | 15 00 |
| Examination Fee (not returnable, but payable once only), Primary Branches | 20 00 |
| Examination Fee (not returnable, but payable once only), Final Branches | 10 00 |

No fee for Graduating Expenses.

In conformity with the foregoing regulations, the expenses for each of the three courses are as follows:

FIRST COURSE:

| | |
|---|---|
| Matriculation | $5 00 |
| Four Primary Tickets | 60 00 |
| Demonstrator of Anatomy (obligatory) | 10 00 |
| Total | $75 00 |

SECOND COURSE:

| | |
|---|---|
| Four Primary Tickets | $60 00 |
| Two Final Tickets | 30 00 |
| Demonstrator of Anatomy (optional), $10.00. | |
| Examination Fee, Primary Branches | 20 00 |
| Total | $110 00 |

THIRD COURSE:

| | |
|---|---|
| Two Final Tickets | $30 00 |
| Examination Fee, Final Branches | 10 00 |
| Total | $40 00 |

Graduates of other recognized Dental Colleges will be admitted on paying the matriculation fee and *fifty* dollars.

No charge will be made to matriculants for the courses of practical instruction in the Laboratory, on Physiology and Histology, nor for Clinical Lectures.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, unless *special arrangement be made with the Dean to suit the convenience of the student.*

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

Students may matriculate at any time during the nine months' Infirmary Course, and thus begin Infirmary Practice at once, on condition that they pay $25, which amount will be credited to them as part payment of their regular fees.

*Graduates* of this School may be admitted as third-year students in the Medical Department after passing the *medical* examination in Anatomy, Physiology, Chemistry, Materia Medica, and Therapeutics. After two years' additional study on Surgery, Practice, and Obstetrics, they will be admitted to the final examination for the Medical degree.

*Candidates* for graduation in the Dental School who desire to obtain a medical degree thereafter may be admitted to the *medical* examination on the four primary branches at the termination of their second dental course, *provided* they give written notice to the Dean of their intention so to do *one month* before the time of the March examinations, and provided also that they have complied with the requirements of the Medical Department as regards dissection and study of Histology.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union. Students requiring further information are requested to communicate with the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,
*1315 Massachusetts Avenue N. W., Washington, D. C.*

Telephone call, 885.

## Text Books and Works of Reference.

ANATOMY.—*Gray's Anatomy,** Quain's Anatomy, Descriptive and Surgical; Holden's Manual of Dissection.

PHYSIOLOGY.—*Landois'*, Dalton's, or Flint's Physiology; Foster and Langley's Practical Physiology; Rutherford's Practical Histology.

CHEMISTRY.—*Mitchell's Dental Chemistry*, Barker's or Fowne's Chemistry.

MATERIA MEDICA.—*H. C. Wood's Therapeutics;* National Dispensatory; Edes' Therapeutics.

PROSTHETIC DENTISTRY.—*Richardson's Mechanical Dentistry;* Essig's Dental Metallurgy.

* The works first named and in *italics* are preferred.

OPERATIVE DENTISTRY.—*Harris' Principles of Practice;* Tomes' Dental Anatomy and Surgery; Taft's Operative Dentistry; Garretson's Oral Surgery; American System of Dentistry—Litch. Gould's Medical Dictionary.

**Students of Dentistry.**

| Name. | Residence. |
|---|---|
| Hugh M. Adams, | Pennsylvania. |
| Charles W. Appler, | Maryland. |
| Frank A. Austin, | District of Columbia. |
| Charles H. Beatty, | District of Columbia. |
| Harry E. Belcher, | New York. |
| William T. Burch, | District of Columbia. |
| George W. Clarvoe, | District of Columbia. |
| William N. Cogan, | District of Columbia. |
| Joseph Cohen, | Texas. |
| Arthur B. Cooper, | District of Columbia. |
| John L. Curtis, | New York. |
| Henry A. Dunn, | District of Columbia. |
| John H. Galloway, | Iowa. |
| William S. Gustin, | Ohio. |
| Robert E. L. Hackney, | District of Columbia. |
| William Hislop, | Canada. |
| Hubert L. King, | District of Columbia. |
| Henry Knowles, | Georgia. |
| Eugene L. Le Merle, | District of Columbia. |
| Charles H. L. Lemon, | District of Columbia. |
| Walter A. Low, | Virginia. |
| William A. Lyon, | Kansas. |
| Herbert MacNamee, | New York. |
| John H. Madert, D. D. S., | District of Columbia. |
| Stephen C. Miller, M. D., | Minnesota. |
| James W. Montgomery, | Kentucky. |
| Harry B. Moore, | District of Columbia. |
| Robert L. Nall, | Kentucky. |
| Hiram P. Nelson, | New York. |
| Wesley C. Orr, | District of Columbia. |
| Philip Otterback, | District of Columbia. |
| Frederick W. Parker, | New York. |
| Harry Parsons, | New York. |
| Warren Parsons, | California. |
| Will K. Petty, | District of Columbia. |
| N. Willis Pomeroy, | District of Columbia. |

| Name. | Residence. |
|---|---|
| Charles S. Rice, M. D., | Pennsylvania. |
| Louis S. Sandoz, | Louisiana. |
| Carl E. Smith, | Virginia. |
| T. Guy Songster, | District of Columbia. |
| James R. Stewart, | Virginia. |
| Charles V. Stiles, | District of Columbia. |
| Wines E. Thornton, | Vermont. |
| William H. Trail, | Maryland. |
| Ernest Varela, | California. |
| Israel J. Warfield, | Maryland. |

Students of Dentistry, 46.

# THE COLUMBIAN COLLEGE.

**The Faculty.**

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of Political and Historical Philosophy.

THE REV. ADONIRAM J. HUNTINGTON, D.D.,
Professor of the Greek Language and Literature.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of the English Language and Literature, and of Anglo-Saxon.

ANDREW P. MONTAGUE, A. M., PH. D.,
Professor of the Latin Language and Literature.

J. HOWARD GORE, B.S., PH. D.,
Professor of Mathematics, and of the German Language and Literature.

HOWARD L. HODGKINS, A. M., PH. D.,
Professor of Physics, and Adjunct Professor of Mathematics.

LEE D. LODGE, A. M., PH. D.,
Professor of the French Language and Literature.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Intellectual and Moral Philosophy.

CHARLES E. MUNROE, S. B.,
Professor of Chemistry.

H. CARRINGTON BOLTON, PH. D.,
Non-resident Lecturer on the History of Chemistry.

J. S. LEMON, PH. D.,
Lecturer on Physiological Psychology.

CYRUS ADLER, PH. D.,
Lecturer on Oriental History.

ANTONIO M. SOTELDO,
Professor of Spanish.

E. HILTON JACKSON, A.B., LL.B.,
Assistant in Latin.

H. R. PYNE,
Assistant in Greek.

H. GRANT HODGKINS, A.B.,
Registrar and Librarian.

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The College is open to students of both sexes.

The regular course of instruction is comprised in nine schools, as follows:

I. SCHOOL OF ENGLISH: including English Philology, English Literature, Rhetoric, Logic, Elocution, General History, and Anglo-Saxon.

II. SCHOOL OF GREEK: including the Greek language and Literature and the History of Greece.

III. SCHOOL OF LATIN: including the Latin Language and Literature and the History of Rome.

IV. SCHOOL OF FRENCH: including the French Language and Literature and the History of France.

V. SCHOOL OF GERMAN: including the German Language and Literature and the History of Germany.

VI. SCHOOL OF MATHEMATICS: including Pure Mathematics, Mechanics, and Astronomy.

VII. SCHOOL OF CHEMISTRY.

VIII. SCHOOL OF PHYSICS.

IX. SCHOOL OF PHILOSOPHY.

### School of English.

PROFESSOR SHUTE.

1. Instruction is given in the fundamental principles of style and invention, mainly in their rhetorical, and incidentally in their logical aspects. Instruction is given in elocution and composition; also in the general outlines of English and American History. Three hours a week.

Text-books: Genung's Rhetoric; Thompson's History of England; Eliot's History of the United States.

2. Instruction is given in the principles of pure and applied logic, and application of these principles is required in analyzing and reconstructing ordinary forms of argumentation in select authors. Instruction is also given as to the origin, development, and present powers of the language; also in the biography, times, and works of the best English writers. Three hours a week.

Text-books: Jevons' Logic; Hudson's Shakespeare; Shaw's English Literature; Sweet's Anglo-Saxon Primer and Beowulf.

3. Fowler's Inductive Logic; Hunt's Prose and Prose Writers; American Literature. Four hours a week.

4. Elocution and Essays throughout the Course; Modern History; Criticisms of American Literature. Two hours a week.

A certificate of proficiency is granted on completing Courses 1, 2, and 3; a diploma for Courses 1–4, inclusive.

For Graduate Courses in English, see under head of "Graduate School."

### School of Greek.

PROFESSOR HUNTINGTON.
MR. H. R. PYNE.

In this School instruction is given in the Greek Language and Literature and in Greek History. The following books are used for texts or reference: Goodwin's and Hadley's Greek Grammars, Boise's Exercises in Greek Syntax, and Smith's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's, or Long's, or Ginn & Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all cases.

1. Homer's Iliad and Odyssey; Herodotus; History of Greece. Three hours a week.

2. Xenophon's Memorabilia; Lucian. Three hours a week for one term.

3. Isocrates. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week.

5. Plato and Thucydides, or Æschylus. One hour a week.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1 to 5, inclusive.

For Graduate Courses in Greek, see under head of "Graduate School."

### School of Latin.

PROFESSOR MONTAGUE.

MR. E. H. JACKSON, A. B., LL. B.

In this School instruction is given in the Latin Language and Literature and in Roman History. The School offers nine courses, of which 1 and 2 are required for a certificate, and 1, 2, 3, 4, and 5 (or 6) for a diploma in Latin. Courses 7, 8, and 9 constitute the Graduate Department, in which those parts of the works of the authors named which are not usually read by undergraduates are assigned. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required.

Grammars: Harkness's (text-book), Allen and Greenough's, Peters's, and Madvig's. Lexicons: Harper's, White's English-Latin. Roman Literature: Cruttwell's, Wilkins's. Classical Atlas: Ginn & Co.'s or Kiepert's. Histories: Merivale's, Liddell's, Allen's, Myers's. In all the courses except 1, selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

Courses: 1. Ovid, Livy, Horace (*Odes*), the History of Rome; three times a week for nine months. 2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Plautus (*Captivi*); three times a week for four and a half months. 3. Cicero (*Letters*), Tacitus (*Germania*), Terence (*Andria*), Roman Antiquities; three hours a week for four and a half months. 4 Tacitus (*Agricola* and *Annals I.*), Pliny (*Letters*), Seneca, Juvenal, Critical Study of the History of Rome; three hours a week for nine months. 5. Quintilian, Latin Inscriptions (Allen); one hour a week for six months. 6. Cicero (*De Finibus*', Social Life of the Romans; one hour a week for five months.

For Graduate Courses in Latin, see under head of "Graduate School."

### School of French.

PROFESSOR LODGE.

1. The class is drilled in French pronunciation; grammar; progressive exercises in composition; conversation.

Works read: Histoire d'un Conscrit; Le Voyage de M. Perrichon; Un Mariage d'Amour; Edgren's French Grammar is used. Three hours a week.

2. French syntax critically studied; Dictation Exercises; Short Original Essays; French Conversation.

Works read: Petite Histoire du Peuple Français, Lacombe; Le Cid; Athalie; L'Avare; Parallel readings in Corinne; Sauveur's Grammaire Française. Three hours a week.

3. French Idioms studied; Lectures on the development of the tongue; Comparative Philology.

Works read: Bug-Jargal; Le Bourgeois Gentilhomme; Horace; Cinna; La Poudre aux Yeux; La Bataille de Dames; Parallel reading in nineteenth century authors. Three hours a week.

4. Philological studies based on original texts; thorough investigation in the origin of the laws of French syntax; Ruy Blas, Hernani, and Crane's Romantisme Français are also read. Two hours a week.

5. Lectures on the history of French Literature; systematic study by the class of one or more epochs; the authors read vary with the epochs chosen for study. Two hours a week.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1, 2, 3, 4 or 1, 2, 3, 5.

For Graduate Courses in French, see under head of "Graduate School."

### School of German.

PROFESSOR GORE.

Instruction in this department has, as its primary object, a thorough knowledge of the Grammar and familiarity with the literature, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German Grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

Text books: Sheldon's and Joynes-Meissner's German Grammars.

1. Readings from Bilderbuch ohne Bilder, Andersen; Das Kalte Herz, Hauff. Two hours a week.

2. Readings from Der Neffe als Onkel, Schiller; Höher als die Kirche, and selected stories. Two hours a week.

3. Readings from Lessing, Auerbach, Heyse, and Freytag. Two hours a week.

4. Elective seminary studies; Gore's German Science Reader, and extensive reading at sight. Two hours a week.

A certificate is granted on the completion of the four courses.

### School of Mathematics.

PROFESSORS GORE AND HODGKINS.

In this School instruction is offered in seven courses:

1. Solid Geometry; Wells' Geometry. Four hours a week for one term.

2. Algebra; Bowser's and Wells' Algebras. Four hours a week for one term.

3. Plane and Spherical Trigonometry, Wells'. Three hours a week for one term.

4. Analytic Geometry, Wentworth. Three hours a week for one term.

5. Differential and Integral Calculus, Taylor. Three hours a week.

6. Mechanics, Peck; Least Squares, Merriman. Two hours a week.

7. Astronomy, Young's General Astronomy. Two hours a week.

A certificate of proficiency is granted on completing courses 1, 2, 3; a diploma for courses 1, 2, 3, 4, 5, 7, or 1 to 6, inclusive.

For Graduate Courses in Mathematics, see under head of "Graduate School.

**School of Chemistry.**

PROFESSOR MUNROE; PROFESSOR BOLTON.

1. For students who have taken Mathematics 1 and 2 and Physics 1. General Inorganic and Organic Chemistry. Three hours per week for one year.

Text-books: Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. For students who have taken course 1, Laboratory Practice. Three periods per week for one year.

Text-book: Cooke's Laboratory Practice.

3. For students who have shown marked aptitude in course 2, Qualitative and Quantitative Analysis and Chemical Preparations.

Text-books: Clowe's Qualitative Analysis; Thorpe's Quantitative Chemical Analysis.

A certificate of proficiency is granted on completing course 1, and a diploma for courses 1 and 2.

For Graduate Courses in Chemistry, see under head of "Graduate School."

H. CARRINGTON BOLTON, Ph. D.,

Non-resident Lecturer on the History of Chemistry.

Professor H. CARRINGTON BOLTON, Ph. D., gives from time to time a course of lectures on the History of Chemistry. The course for the present year comprised nine lectures on the topics indicated:

I, Chemical Arts in Bible Times; II, Theoretical Views in Ancient Times; III, The Folly and the Wisdom of Alchemy; IV, The Growth and Decline of Alchemy; V, Paracelsus and the Iatro-chemists; VI, The Era of Phlogiston; VII, The Development of Pneumatic Chemistry; VIII, Lavoisier and the Reformation of Chemistry; IX, The Era of Quantitative Chemistry.

The course was illustrated by diagrams and 250 lantern-slides representing portraits, apparatus, title pages of rare books, interiors of ancient

and modern laboratories, etc. The subject was treated from the standpoints of philosophy and of practical chemistry, and the treatment was interspersed with biographies, personal narratives, the description of processes, and with references to contemporary progress in physical science and secular history.

The next course will be philosophical as well as historical, and will revolve around the burning points of chemical research at the present day.

These Lectures are open to all students of the University, to members of the Chemical Society of Washington, and to invited guests.

### School of Physics.

PROFESSOR HODGKINS.

During the session of 1893–'94 three courses will be given, of which course 1 will be required for a certificate and courses 1, 2, and 3 for a diploma.

1. A lecture course on general physics, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures will be illustrated by experiments and will be based on Avery's Elements of Natural Philosophy, Barker's Physics (Advanced Course), and Ganot's Physics.

For admission to this class courses 1 and 2 in Mathematics will be required and the simultaneous study of course 3 in Mathematics will be necessary. A knowledge of the elements of Physics as contained in Avery's First Principles of Natural Philosophy or in Gage's Introduction to Physical Science is desirable, but will not be insisted on during the next session.

2. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course one. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports.

For admission to this class courses 1, 2, and 3 in Mathematics and course 1 in Physics will be required.

3. A lecture and laboratory course in Magnetism and Electricity, following, with some modifications, the course given in Poyser's Magnetism and Electricity (Advanced course).

For admission to this class courses 1, 2, and 3 in Mathematics and courses 1 and 2 in Physics will be required. In exceptional cases students who have not completed course 2 in Physics may be admitted to this class.

### School of Philosophy.

PROFESSOR STERRETT.

The special studies in this School as directed by Professor STERRETT are pursued in the upper two classes. The Junior Class spends the first half of the year in the study of Psychology, the aim being to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will, as organic processes of the man developing into conscious universal relations. In the absence of more formal instruction in Experimental Psychology, a course of lectures on Psycho-physics will be given this year by Prof. J. S. LEMON, Ph. D., of the Clark University.

This class spends the last half of the year on the History of Philosophy. The course this year is on Modern Philosophy, from Descartes to Herbert Spencer and E. von Hartmann. It is given in a course of lectures—concurrent readings and theses being required from the students.

The Senior Class spends the first half of the year (5 hours a week) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Hobbs, Kant, Mill, and Spencer, and to hand in well prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. Green's *Prolegomena to Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

The latter part of the year is given to the study of *Political Economy*, chiefly on historical and ethical lines. Here E. de Laveleye and Roscher are used as text-books.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy, two hours a week in the afternoon.

For Graduate Courses in Philosophy, see under head of "Graduate School."

### School of Philosophy.

PRESIDENT WELLING AND DOCTOR ADLER.

The President of the University is charged with the work of instruction in Political and Historical Philosophy. After a course of lectures on the origin and historical significance of the Constitutional Law of the United States, he places Fiske's Civil Government in the hands of the student for careful study. After a course of lectures on the genetic ideas of International Law and its place in juristic evolution, he assigns Gallaudet's Manual for study.

The President also delivers a course of lectures on the Science of History, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progess measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies on primitive society, and are followed by a rapid survey of the "civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America.

CYRUS ADLER, Ph. D.,
Of the Smithsonian Institution.

Dr. CYRUS ADLER delivers a course of lectures on the Assyro-Babylonian Empire, comprising: I. A Sketch of its History (four lectures). II. Excavation of the Assyro-Babylonian Monuments (two lectures). III. Decipherment of the Cuneiform Inscriptions (one lecture). IV. The Cuneiform Inscriptions and the Old Testament (two lectures). V. Art and Architecture of the Assyro-Babylonians (one lecture). VI. Their Literature (two lectures). VII. Their jurisprudence (one lecture).

These lectures are open to all students of the University and to invited guests.

For Graduate Courses in Political and Historical Philosophy, see under head of "Graduate School."

**Time and Terms of Admission.**

The regular examinations for admission to the College are held on the Friday and Saturday immediately preceding the opening of the session. Every applicant is required to deliver to the President testimonials of good moral character, and, if coming from another college, must present a certificate of honorable dismission.

Candidates for admission to any class of the College must, unless they are graduates of the Preparatory School or of the High Schools of Washington, sustain an examination in the following elementary studies: Spelling, English Grammar, Geography, Elements of History, and Arithmetic.

Candidates for admission to any School will be examined in all the studies presupposed by the curriculum of that School.

Candidates for admission to the School of English will be admitted to its lowest class on passing a satisfactory examination on the preliminary studies above indicated.

Candidates for admission to the School of Greek in its lowest class will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek

Reader or Xenophon's Anabasis (first four books), first three books of Homer's Iliad, Jones' Greek Prose Composition, and Myers's or Schmitz's History of Greece.

Candidates for admission to the School of Latin will be examined in Harkness's Latin Grammar, four books of Cæsar's Commentaries, six of Cicero's Orations, six books of the Æneid of Virgil, Sallust's Conspiracy of Catiline (in part), Latin Composition, and Allen's, Myers's, or Pennell's History of Rome.

Candidates for admission to the School of French will be examined in Edgren's French Grammar and in the first hundred pages of Super's French Reader.

Candidates for admission to the School of Mathematics in its lowest class will be examined in Algebra (through Quadratic Equations) and in the first four books of Geometry.

Candidates for admission to the School of Physics will be required to pass the examination for admission to the Sophomore Class in Mathematics.

Real equivalents in quality and amount will be received in place of the books or parts of the books prescribed as above for study preparatory to admission into the Schools of Greek, Latin, and Mathematics.

Candidates for admission to any advanced class in any School will be examined in all the previous studies of the class which they propose to enter.

Students wishing to pursue a select course in certain Schools will be admitted to the classes for which they may be found qualified; but an examination in preliminary and indispensable studies will be held in all cases, and every student pursuing such a course, if under the age of twenty-one years, is required to embrace in his selections not less than three distinct schools, with at least twelve recitations or lectures per week. The choice of studies embraced in a Select Course must be made immediately upon the commencement of a term, and no student will have leave to make a new choice of studies during any single term.

### Degrees.

The degree of Bachelor of Arts is conferred on students who obtain diplomas in four Schools and certificates in four other Schools; provided the diplomas include those from the Schools of English, Greek or Latin, and Philosophy, and the certificates include those from the Schools of Latin or Greek, French or German, and Mathematics.

The degree of Bachelor of Science is conferred on students who obtain diplomas in four Schools and certificates in four other Schools; provided the diplomas be those from the Schools of Mathematics, Philosophy,

French or German, and Chemistry or Physics, and the certificates include those from the Schools of English and Physics or Chemistry.

A diploma is the equivalent of two certificates, and may be so counted in enumerating the certificates required for a degree.

Courses of graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this catalogue.

### Examination.

At the end of each term an examination of all the classes in all the Schools is publicly held in all the studies of that term.

The results of each Term Examination are combined with those of the daily recitations and attendance of the student during the term, in order to ascertain his academic standing at the end of that term.

Each recitation and each examination are graded on a scale of merit from 0 to 100, and a failure to reach the final average grade of 75 in any study is regarded as a failure in that study.

At the close of each College year all the classes in all the Schools are publicly examined in review of all the studies of that year.

The results of the Annual Examinations are combined with those of the Term Examinations, in order to ascertain the student's academic standing at the end of each year.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and, in default of doing so, shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for the degree of Bachelor of Arts are concluded six weeks anterior to the date of the Annual Commencement, that time may be given to Professors for the inspection of written examination papers, and to students for the preparation of parts to be performed on Commencement Day by the successful candidates for the degrees of Bachelor and Master of Arts, to whom public parts on that day may be assigned by the Faculty.

Examinations for prizes and for the degree of Master of Arts are concluded five weeks before the end of each scholastic year.

### Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as the reward of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon.

Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, and are annually awarded to the two successful competitors, in a public contest held on Commencement Day. These prizes are awarded by a committee whom the Faculty selects for this purpose, and are publicly delivered at the close of the contest.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar and writer in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the best two scholars in the Pure and Applied Mathematics.

Any student entitled to a diploma in any school will be allowed to contend for the prize given in that department, provided he shall have pursued the required number of studies during the year, and shall have passed satisfactory examinations in the same.

### Prizes in 1891–'92.

Staughton Prize, Susan Florence Shipman, District of Columbia.

Elton Prize, Susan Florence Shipman, District of Columbia.

Ruggles Prize, Nina D. Bradley, District of Columbia.

Davis Prize, *First*—L. Murphree Roper, South Carolina.

Davis Prize, *Second*—W. R. Blackford, District of Columbia.

The Enosinian Prize, for Excellence in Debate, was awarded by the Society to Bailey K. Ashford, District of Columbia.

The Prize for Parliamentary Law, given by Professor GORE, was awarded to John H. Stone, District of Columbia.

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## ORDERS OF THE COLLEGE YEAR.

### Terms and Vacations.

The College year, embracing nine months, is divided into two terms: The first term begins on the third Monday in September and continues to the first of February. The second term begins on the first of February and ends on the day of the Annual Commencement, which is held on the second Wednesday in June.

A vacation of eight days is given at Christmas, beginning on that holiday and lasting until the next day after New Year's.

The 22d of February is observed as a College holiday.

A recess is given from Good Friday to Easter Monday, inclusive.

### Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the degrees of Bachelor of Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

A Latin Salutatory will be awarded to the graduate in each year whose average standing in all the Schools is the highest, and an English Salutatory to the student who stands second.

The Valedictory is awarded with special regard to the qualifications of the student as a Valedictorian, as well as on the ground of scholarship.

Philosophical, Classical, Scientific, Metaphysical, Ethical, Historical, or Literary Orations may be awarded to students who are eminent respectively in the corresponding Departments.

All the degrees of the College are publicly conferred on Commencement Day.

Diplomas in the several schools and prizes for special excellence in any Department are publicly delivered on the same day.

### Public Worship.

Prayers, accompanied by the reading of the Scriptures, are offered daily in the College Chapel. All students are expected to attend this service.

### Library Hours.

The College Library, to which large additions were made during the last year, is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 6 to 10 p. m., for purposes of study and inquiry, as also for the distribution of books. A reading-room, provided with the leading reviews, periodicals, newspapers, etc., is maintained in connection with the Library for the use of students.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for purposes of research in any special line of studies.

### Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly in its hall for the purpose of improvement in Debate and Composition.

### Lectures.

Courses of Lectures in Literature, Art, and Science (comprising Lectures in English, French, and German) are organized every year by the Faculty.

These Lectures are open to all the classes, and to the public on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Lecture Hall of the University, are equally open to all students of the University.

### General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all his studies, including a record of all absences from lectures, recitations, or other public exercises of the College, will be rendered quarterly to parents or guardians.

The daily recitations of the College Classes are brought, as far as practicable, into the early portion of the day. The advantages of an attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

### College Expenses.

| | |
|---|---|
| 1. Admission Fee (paid but once, on entrance) | $10 00 |
| 2. Tuition for the year in three or more Schools | 90 00 |
| 3. Tuition for the year in two Schools | 70 00 |
| 4. Tuition for the year in one School | 50 00 |
| 5. Laboratory work in Chemistry, 2 and 3 (material) each | 10 00 |

These charges cover all expenses, including public fuel, servants' wages, etc.

Bills are payable semi-annually, in advance.

The College provides no commons, but board may be procured in the city at such reasonable rates that the annual expenses of students need not exceed the sum of three hundred dollars. Eligible boarding-houses are indicated on the bulletin boards of the University.

### Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Preparatory School and four in the College, is annually conferred on the best scholar in the public High School. Students on this foundation pay semi-annually in advance a fee of eight dollars for public fuel, servants' wages, etc.

## STUDENTS IN THE COLUMBIAN COLLEGE.

### Abbreviations.

A. C.—Analytical Chemistry.
ANTH.—Anthropology.
ARCH. DR.—Architectural Drawing.
AS.—Assaying.
AST.—Astronomy.
B.—Botany.
B'P—Blowpipe.
C.—Chemistry.
C. E.—Civil Engineering.
E.—English.
F.—French.
GEOL.—Geology.
GER.—German.
G.—Greek.
L.—Latin.
M.—Mathematics.
MECH. DR.—Mechanical Drawing.
MET.—Meteorology.
MIN.—Mineralogy.
N. S.—Natural Science.
PHIL.—Philosophy.
P.—Physiology.
PHYS.—Physics.
PSY.—Psychology.
TOP. DR.—Topographical Drawing.
Z.—Zoölogy.

### Candidates for Degrees.

| Name. | Residence. |
|---|---|
| Raymond M. Alden, | District of Columbia. |
| Harry B. Armes, | District of Columbia. |
| Andrew Y. Bradley, | District of Columbia. |
| Margaret H. Brewer, | Indian Territory. |
| Edna A. Clark, | New Hampshire. |
| Charles G. Cogley, | District of Columbia. |
| Lucy E. Cogley, | District of Columbia. |
| William W. Comstock, | Connecticut. |
| Clara A. Crew, | Ohio. |
| George R. Davis, | Maine. |
| Juliet M. Duvall, | District of Columbia. |
| George L. Edmunds, | District of Columbia. |
| Mary V. Fenwick, | District of Columbia. |
| J. Herbert Ford, | District of Columbia. |
| S. Carroll Ford, | District of Columbia. |
| Winthrop D. Green, | Massachusetts. |
| William W. Grier, | District of Columbia. |
| H. May Johnson, | District of Columbia. |
| Robert H. King, | New York. |
| Carrie E. Logan, | New York. |
| Samuel K. McGinnis, | North Dakota. |
| Hester E. McNelly, | District of Columbia. |
| Addie E. Maguire, | District of Columbia. |
| Sarah E. Mason, | District of Columbia. |
| Henrietta C. Morrison, | District of Columbia. |
| Annie L. Pierce, | District of Columbia. |

| Name. | Residence |
|---|---|
| Edward A. Playter, | District of Columbia. |
| Henry A. Polkinhorn, | District of Columbia. |
| D. Webster Prentiss, Jr., | District of Columbia. |
| Elliott C. Prentiss, | District of Columbia. |
| Spencer B. Prentiss, | District of Columbia. |
| Mary C. Priest, | District of Columbia. |
| Henry R. Pyne, | Maine. |
| Harry D. Sanders, | New York. |
| A. Monell Sayre, | New York. |
| J. Macbride Sterrett, Jr., | District of Columbia. |
| H. Worthington Talbott, | Maryland. |
| Morven Thompson, | District of Columbia. |
| F. Estelle Throckmorton, | District of Columbia. |
| Arthur L. Wilson, | West Virginia. |
| Elinor Wilson, | District of Columbia. |

Candidates for Degrees, . . . . 41

**Special Students.**

| | |
|---|---|
| Gilbert Bloss, D. C., | E., Ger., F., C., Phys. |
| M. A. Connors, D. C., | Greek. |
| Mary O. Dean, D. C., | E., Ger., F., C., Phil. |
| Howard G. England, Md., | E., M., C. |
| Gilbert N. Foxwell, Md , | E., G., L., Ger., M., Phil. |
| Sarah D. Gadsden, S. C., | Ger., M. |
| J. Holdsworth Gordon, Jr., D. C., | E., Ger., M., Phys., C. |
| George R. Greenleaf, D. C., | E., Ger., F., M., Phys. |
| Mortimer B. Hall, Md., | E., Ger., F., M., Phys., C. |
| N. Monroe Hopkins, D. C., | E., M., Phys. |
| Edward D. Johnson, D. C., | E., G., Ger., Phil. |
| B. A., Maryland Agricultural College, 1892. | |
| Frederick C. Jones, D. C., | E., F., M., C. |
| William M. Kemball, D. C., | F., M., C. |
| Salvador D. Moore, D. C., | E., M., C. |
| Jessie L. Nelson, Montana, | E., L., F., M. |
| Stanley Olmsted, D. C., | L., Ger., F., M. |
| Thornton J. Parker, D. C., | Ger., F., Phys., C., Ast. |
| G. Frieland Peter, D. C., | E., Ger., F., M., C. |
| Florence E. Plant, D. C., | Ger., M., C. |
| Nella B. Shute, D. C., | E., F., Phil. |
| Robert C. Wilkins, Ohio, | E., Ger., F., M., C. |

Special Students, . . . . . 21

# THE CORCORAN SCIENTIFIC SCHOOL.

**The Faculty.**

JAMES C. WELLING, LL. D.,
President.

CHARLES E. MUNROE, S. B.,
Professor of Chemistry and Dean of the Faculty.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of the English Language and Literature.

ANDREW P. MONTAGUE, A. M., PH. D.,
Professor of Latin.

J. HOWARD GORE, B. S., PH. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, A. M., PH. D.,
Professor of Mathematics.

WILLIAM S. YEATES, A. M.,
Professor of Mineralogy and Geology.

LEE D. LODGE, A. M., PH. D.,
Professor of French and Philosophy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

F. H. KNOWLTON, M. S.,
Professor of Botany.

THEODORE N. GILL, M. D., PH. D.,
Professor of Zoölogy.

OTIS T. MASON, A. M., PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, PH. D., LL. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of the German Language.

HARRY KING, LL. B.,
Emeritus Professor of Drawing.

EXUM PERCY LEWIS, B. S.,
Instructor in Physics.

A. W. GREELY, BRIG. GEN. U. S. A.,
Professor of Geography.

JOSIAH PIERCE, JR., M. A.,
Professor of Drawing and Applied Geometry.

H. CARRINGTON BOLTON, A. M., PH. D.,
Lecturer on History of Chemistry.

A. F. CRAVEN, A. B., LL. B.,
Assistant Professor of Economics.

CHARLES W. STILES, A. M., PH. D.,
Instructor in Histology.

H. A. BUMSTEAD, A. B.,
Assistant in Physics.

G. E. CURTIS, M. A.,
Assistant in Meteorology.

T. M. CHATARD, S. B., PH. D.,
Lecturer on Chemical Engineering.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

FRANK L. AVERILL, C. E.,
Assistant in Engineering Field-work.

EDWIN E. HARRIS, A. B.,
Assistant in Chemistry.

FELIX FREYHOLD, C. E.,
Assistant in Iron and Steel Construction.

HENRY R. PYNE,
Assistant in Latin.

M. M. RAMSEY,
Assistant in Spanish.

HERBERT L. RICE,
Assistant in Astronomy.

E. L. THURSTON,
Assistant in Engineering.

GEORGE V. CHANDLER,
Assistant in Mineralogy and Geology.

J. S. JOHNSON,
Assistant in Applied Mathematics.

B. A. WOLFF, A. B.,
Assistant in Physics.

W. DE LANCY GILL,
Assistant in Freehand Drawing.

VICTOR MINDELEFF,
Assistant in Modelling.

LOUIS AMATEIS,
Assistant in Architectural Drawing.

EDWIN H. FOWLER, B. S.,
Assistant in Topographic Drawing.

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The School of Science established by the Trustees and Overseers of the Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin on the third of October and are held in the New University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take Special Courses in any of the Departments.

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## COURSES OF STUDY LEADING TO THE DEGREE OF B. S.

### FIRST YEAR.

(Common to all Courses.)

Chemistry, 1 and 6.*
Drawing, 1, 2 and 3.
English, 1.
French, 1.
German, 1.
Mathematics, 1 and 2.

## COURSE I—GENERAL.

### SECOND YEAR.

Applied Mathematics, 1 and 2, and Exercises.
Chemistry, 6.
Engineering, 1.
English, 2.
French, 2.
Geology, 1.
German, 2.
Mathematics, 3 and 4.
Mineralogy, 1.
Physics, 1.
Philosophy, 1.

### THIRD YEAR.

Applied Mathematics, 5 and 8.
Chemistry, 6.
English, 3.
French, 3.
Geology, 2 and 3.
German, 3.
Mathematics, 5.
Physics, 4.
Philosophy, 2 and 3.

### FOURTH YEAR.

Applied Mathematics, 6 and 9.
Astronomy, 1.
Chemistry, 2 and 6.
Mathematics, 6.
Physics, 6.

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* The numbers following the subjects for study refer to the Courses in the various Departments of the Corcoran Scientific School.

## COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 1 and 2, and Constructive Exercises.
Drawing, 3 and 6.
Engineering, 1 and 2, 24 and 21, Constructive Exercises and Field-work.
Geology, 1.
German, 2.
Mathematics, 3 and 4.
Mineralogy, 1 and 4.
Physics, 1.
(Mechanical Laboratory.)

THIRD YEAR.

Applied Mathematics, 5, 8, 10, and 11, and Constructive Exercises.
Astronomy, 1.
Geology, 2.
Engineering, 5, 6, 7, 8, 9, 19, 20, and Constructive Exercises and Field-work.
Mathematics, 5.

FOURTH YEAR.

Applied Mathematics, 6, 7, 9, 12, and 13.
Engineering, 11, 12, 14, 15, 16, 19, and 20, and Constructive Exercises.
Chemistry, 6.
Geodesy, 1 (1 term).
Mathematics, 6.
Physics, 4 and 6.

## COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 1, and Constructive Exercises.
Chemistry, 6.
Drawing, 3.
Engineering, 21, and Constructive Exercises.
Geology, 1.
German, 2.
Mathematics, 3 and 4.
Mineralogy, 1.
Physics, 1.
(Mechanical Laboratory.)

THIRD YEAR.

Applied Mathematics, 5, 8, 12, and 13.
Engineering, 22, 23, and Constructive Exercises.
Geology, 2.
Mathematics, 5.
Physics, 2, 3, 7, and 9.

FOURTH YEAR.

Applied Mathematics, 6, 7, and 9.
Engineering, 18, 28, and Constructive Exercises.
Mathematics, 6.
Physics, 4, 5, 6, and 8.

## COURSE IV—IN CHEMISTRY (A).

SECOND YEAR.

Geology, 1.
German, 2.
Physics, 1.
Mineralogy, 1.
Chemistry, 2 and 6.

THIRD YEAR.

German, 3.
Geology, 2.
Chemistry, 3 and 6.

FOURTH YEAR.

Chemistry, 4, 5, 6, and 7.

## COURSE V—IN CHEMISTRY (B).

SECOND YEAR.

German, 2.
Physics, 1.
Mineralogy, 1.
Mathematics, 3 and 4.
Chemistry, 2 and 6.

THIRD YEAR.

German, 3.
Mathematics, 5.
Physics, 2 and 3.
Chemistry, 3 and 6.

FOURTH YEAR.

Mathematics, 6.
Physics, 6.
Chemistry, 4, 6, and 7.

## COURSE VI—IN METEOROLOGY.

SECOND YEAR.

Applied Mathematics, 1 and 2, and Constructive Exercises.
Astronomy, 1.
Chemistry, 2 and 6.
Drawing, 2 and 6.
Engineering, 1 and 2.
Geology, 1.
German, 2.
Mathematics, 3 and 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 5 and 6.
Geology, 2 and 3.
German, 3.
Mathematics, 5.
Meteorology, 1, and Practice.
Physics, 5, 6, and 7.

FOURTH YEAR.

Applied Mathematics, 8 and 9.
Astronomy, 2.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2, and Practice.
Physics, 6 and 8.

## COURSE VII—IN GEOGRAPHY.

SECOND YEAR.

Applied Mathematics, 1 and 2.
Chemistry, 2
Drawing, 2 and 4.
Engineering, 1 and 2.
French or German, 2.
Geology, 1.
Mathematics, 3 and 4.
Mineralogy, 1.
Mechanical Laboratory.
Physical Geography.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 3, 5, and 8.
Astronomy, 1.
Drawing, 3 and 6.
Engineering, 5, 6, 7, 8 and 19.
French or German, 3.
Geology, 1 and 3.
Mathematics, 5.
Modelling.
Physics, 2 and 5.

FOURTH YEAR.

Applied Mathematics, 6, 7, and 9.
Astronomy, 2.
Engineering, 10, 15, and 16.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2.
Plate Engraving.
Methods of Reproduction.
Telegraphy and Signaling.

## COURSE VIII—IN GEOLOGY.

SECOND YEAR.

Chemistry, 2.
Drawing, 2, 3 and 6.
Engineering, 1 and 2.
French or German, 2.
Geology, 1.
Mathematics, 3 and 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Biology.
Chemistry, 3.
Engineering, 5 and 6.
Geology, 2 and 3.
Mineralogy, 2.
Physics, 7.
Zoölogy.

FOURTH YEAR.

Botany, 1 and 3.
Chemistry, 5.
Engineering, 10.
Geology, 4.
Geological Field-work and Maps.
Meteorology, 2.
Mineralogy, 4.

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## DEPARTMENTS OF INSTRUCTION.

### Department of Anthropology.

DR. MASON, Lecturer.

(See under head of "Graduate School.")

### Department of Applied Mathematics.

(See Department of Engineering.)

### Department of Architecture.

(See Department of Engineering.)

The studies in this Department are pursued at present under the Department of Engineering (see page 79). They cover the Construction Branch of the course and the first two years of the Architectural Art Branch. Further studies necessary to complete the course will be provided when required.

### Department of Astronomy.

PROFESSOR WINLOCK, Head of Department.
MR. RICE, Assistant.

1. General Descriptive Astronomy. Three hours per week for one year. Young's General Astronomy.

For Graduate Studies in Astronomy, see under head of "Graduate School."

### Department of Botany.

PROFESSOR KNOWLTON, Head of Department.

1. Structural and Systematic Botany.

Text-books: Gray's Structural Botany; Gray's Manual; Ward's Flora of Washington.

2. Histological and Physiological Botany.

Text-books: Goodale's Physiological Botany; Arthur, Barnes, and Coulter, Plant Dissection.

3. Vegetable Paleontology: (*a*) Historical; (*b*) Biological; (*c*) Geological.

Text-books: Zettel's Handbuch der Palæontologie, Lectures, etc.

### Department of Chemistry.

PROFESSOR MUNROE, Head of Department.

DR. BOLTON, Lecturer on History and Philosophy of Chemistry.

DR. CHATARD, Lecturer on Chemical Engineering.

MR. WHITEHEAD, Assistant in Assaying and Metallurgy.

———, Assistant in Quantitative Analysis.

———, Assistant in Qualitative Analysis.

MR. HARRIS, Assistant in General Chemistry.

1. General Chemistry, Theoretical, Inorganic, Organic, and Technical. Three hours per week for one year.

Text-books: Barker's, Remsen's, and Bloxam's Chemistries. Reference books: Ditte's Leçons sur les métaux, Roscoe and Schorlemmer's Treatise, Watts' Dictionary, Richter's Chemistry.

2. Chemical Practice and Qualitative Analysis. Twelve hours per week for one year.

Text-books: Clowe's and Fresenius' Qualitative Analysis.

3. Quantitative Analysis. Fifteen hours per week for one year.

Text-books: Fresenius' and Thorpe's Quantitative Analysis. Reference books: Crooke's Select Methods, Sutton's Volumetric Analysis, Smith's Electro-Chemical Analysis.

4. Technical Analyses and Industrial Processes. Twelve hours per week for one year.

Reference books: Hempel's Gas Analysis, Phillips' Engineering Chemistry, Allen's Organic Analysis, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious Metals. Twelve hours per week for three months.

Reference books: Brown's Manual of Assaying, Ricketts' Assaying.

6. History and Philosophy of Chemistry.

7. Chemistry of the Carbon Compounds. Twelve hours per week for five months.

Text-books: Cohen's Practical Organic Chemistry. Reference books: Allen's Organic Analysis, Richter's Organic Chemistry.

SPECIAL COURSES.

8. Modern methods of iron and steel analysis.

Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive substances.

Text-book: Munroe's Chemistry and Explosives.

For Graduate Studies in Chemistry, see under head of "Graduate School."

## Department of Drawing and Applied Geometry.

PROFESSOR PIERCE, Head of Department.
PROF. KING, Lecturer on Mechanical Drawing.
MR. GILL, Assistant in Freehand Drawing.
MR. MINDELEFF, Assistant in Modelling.
MR. AMATEIS, Assistant in Architectural Drawing.
MR. FOWLER, Assistant in Topographic Drawing.

The Department of Drawing at the Columbian University has been reorganized to provide instruction in all branches of practical and applied geometry and for the special instruction and training of superior draughtsmen.

The course of instruction will include all branches of drawing and special work practised in the departments of the Government and in the offices of architects and engineers, having been designed to meet the needs of those who are seeking advancement and employment but who have not had the opportunity to study the principles and elements of geometry and mathematics, as well as for the training of engineering and scientific students.

1. Practice of Projections and Applied Geometry.
2. Freehand Drawing.
3. Modelling.
4. Mechanical Drawing.
5. Architectural Drawing.
6. Topographic Drawing.

Each of these courses will occupy two hours per week, and will be supplemented by practice.

Students seeking certificates of proficiency as draughtsmen will be expected to acquire a knowledge of elementry geometry, trigonometry, and algebra.

The connection between these branches of mathematics will be illustrated by graphic methods.

The elements of Cartesian or coördinate geometry will be taught by object lessons in projection and by the development of lines and surfaces from their equations. Linkages and mechanical movements will form an important branch of this subject. The elements of conic sections and modern geometry will be taught by perspective and orthographic, isometric, and perspective projections by linkages.

Students will be taught to construct the models and diagrams necessary for their advanced instruction, and will first study outline, light and shade, and expression by freehand drawing from the models constructed and from plaster casts.

Accuracy will be taught by carefully prepared drawings from working models and problems in projection.

Rapidity of execution and delicacy of touch can be acquired only by continual practice, but will be essential in the competition for prizes.

Scientific and engineering students will be taught graphic methods of analysis and records of observations, the interpolation of curves and development of surfaces, the preparation of working and finished drawings.

### Department of Economics.

ASSISTANT PROFESSOR CRAVEN, Head of Department.

1. Theory of Accounts and the Elementary Principles of Finance. Lectures and practical exercises. Two hours per week for one year.

2. The History of Economics; the rise and development of schools of political economy; the growth of industries; and of economic legislation. Two hours per week for one year.

3. The Science of Political Economy; the social aspect of economics. One hour per week for one year.

4. The History and Development of Banking, with a critical investigation of the methods now in vogue at New York, London, Paris, and Berlin. Twelve lectures.

### Department of Engineering and Applied Mathematics.

PROFESSOR FAVA, Head of Department.
MR. AVERILL, Assistant in Engineering Field-work.
———, Assistant in Machine Construction.
MR. FREYHOLD, Assistant in Iron and Steel Construction.
———, Assistant in Building Construction.
MR. THURSTON, Assistant in Engineering.
MR. JOHNSON, Assistant in Applied Mathematics.

All courses hereunder last one term. The number of hours after each course signifies "hours per week." Constructive Exercises are carried on largely outside of the regular recitation hours.

APPLIED MATHEMATICS.

1 and 2. Descriptive Geometry, parts I and II, and Geometry of Position, 2 hours each, and Constructive Exercises, 6 hours. Reference: Warren, Church, Fiedler, Reye, etc.

3. Perspective and Shadows, 1 hour, and Exercises, 2 hours.

4. Stereotomy, 1 hour, and Exercises, 2 hours. Reference: Warren, Adhémar, etc.

5 and 6. Analytical and Applied Mechanics, parts I and II. Reference: Weisbach, Ritter, and Rankine.

7. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.

8 and 9. Strength of Materials and Theory of Elasticity, parts I and II, 2 hours each. Reference: Same as 5 and 6, and Bresse, Collignon, etc.

10 and 11. Graphical Statics, parts I and II, 1 hour each, and Designing Exercises, 2 hours. Reference: Culmann, W. Ritter, Du Bois, Koechlin, etc.

12 and 13. Mechanics of Machinery, 1 hour each. Reference: Rankine, Reuleaux, etc.

14 and 15. Mechanics of Construction for Architects, parts I and II, 1 hour each.

For Graduate Courses in Applied Mathematics, see under head of "Graduate School."

CIVIL ENGINEERING.

1 and 2. Land Surveying and Theory of Instruments, parts I and II, 2 hours each, and Practical Exercises and Field-work in the Spring.

3. Use of Surveying Instruments, for Architects, Mechanical and Electrical Engineers, 6 meetings in the Field.

4. The History of Surveying, 1 hour.

5 and 6. Topographical Surveying, parts I and II, 2 hours each, and Field Practice.

7. Railroad and Highway Engineering, 1 hour, and Constructive Exercises, 10 hours.

8. Hydraulic Engineering (Canals, Rivers, and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises, 10 hours.

9. Engineering Field-work and Railroad Surveying, 16 meetings.

10. Hydrographic Surveying and Exercises, 1 hour.

11. Masonry and Wooden Structures, 1 hour, and Constructive Exercises, 15 hours.

12. Iron and Steel Structures, 1 hour, and Constructive Exercises, 15 hours.

13. Engineering Plant, 1 hour, and Sketching Practice.

14. Materials of Engineering and Metallurgy of Iron and Steel, 1 hour.

15 and 16. Water Supply, Sewerage, and Sanitary Engineering, 1 hour each.

17. City Engineering, 1 hour.

18. Municipal Engineering (Street Railroads and Lighting), for Mechanical and Electrical Engineers, 1 hour.

19. Discussion of Engineering Topics, weekly.

20. Inspection of actual work, fortnightly.

For Graduate Courses in Civil Engineering, see under head of "Graduate School."

MECHANICAL ENGINEERING.

21. Construction of Machinery, part I (the Elements of Machines, etc.), 1 hour, and Constructive Exercises, 6 hours.

Reference: Unwin, Reuleaux, etc.

22 and 23. Construction of Machines, parts II and III, 1 hour each, and Constructive Exercises, 10 hours.

ARCHITECTURE AND CONSTRUCTION.

24. Building Construction, part I, 1 hour, and Constructive Exercises, 15 hours. Reference: Rivingtons, I and II; Burrel; Tutthill.

25 and 26. Building Construction, parts II and III, 2 hours each, and Constructive Exercises, 10 hours.

27. Modern Tall Buildings, and the use of iron in buildings, 1 hour.

28. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises, 3 hours.

29. The Theory of the Planning of Buildings, 1 hour.

30. Heating and Ventilation, 1 hour.

31. Sanitary Engineering, for Architects, 1 hour.

32. The Five Orders of Architecture, 1 hour.

33. The Renaissance in Architecture, 1 hour.

## Department of Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy, 2d edition.

### Department of Geography.

PROFESSOR GREELY, Head of Department.
———, Assistant.
———, Assistant.

Course to be announced later.

### Department of German.

PROFESSORS GORE AND SCHÖNFELD.

1. Accurate training in elementary grammar; exercises in conversation, with readings from Bilderbuch ohne Bilder, Das Kalte Herz, and Immensee. Two hours a week.

2. More extended course in German syntax; translations into German; conversation, and extensive readings from the novelists, Lessing, Schiller, Goethe; and Gore's German Science Reader, 3d edition. Two hours a week.

3. Study of the grammar continued; composition of German essays and literary sketches; critical study of German classics, and lectures on German history and literature. Two hours a week.

For Graduate Course in German, see under head of "Graduate School."

### Department of Latin.

PROFESSOR MONTAGUE, Head of Department.
MR. PYNE, Assistant.

1. McCabe's Bingham's Latin Grammar.

2. Cæsar; Cicero; Harkness's Latin Grammar; Exercises.

3. Cicero; Vergil; Exercises; Latin Grammar continued; Ovid; Livy; the Odes of Horace; and the History of Rome.

4. The Satires and Epistles of Horace; Cicero De Senectute et De Amicitia; Selected Letters of Cicero; the Germania of Tacitus; Exercises; and Latin Grammar.

5. The Agricola and Histories of Tacitus; Seneca; Juvenal; Quintilian; Exercises; Latin Grammar; and the History of Roman Literature.

For Graduate Course in Latin, see under head of "Graduate School."

Courses 1 and 2 are preparatory and do not count for a degree.

### Department of Mathematics.

PROFESSOR HODGKINS, Head of Department.

1. Algebra: three hours. Bowser's College Algebra.
2. Geometry: two hours. Wells' Plane and Solid Geometry.

3. Trigonometry: three hours, first term. Wells' Plane and Spherical Trigonometry, and Bowser's Treatise on Trigonometry.

4. Analytic Geometry: three hours, second term. Hardy's Analytic Geometry.

5. Calculus: two hours. Bowser's Calculus.

6. Higher Calculus and Differential equations: two hours. Bowser's Calculus; Rice and Johnson's Calculus; and Johnson's Differential Equations.

For Graduate Courses in Mathematics, see under head of "Graduate School."

### Department of Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the state of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opinions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. First Year.—Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continual references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours per week.

2. Second Year.—Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*. Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours per week.

3. THIRD YEAR.—Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous examination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours per week.

For Graduate Courses in Philosophy, see under head of 'Graduate School."

## Department of Meteorology.

PROFESSOR ABBE, Head of Department.

MR. CURTIS, Assistant.

The series of courses in the Department of Meteorology is designed to give a complete review of the present condition of that science, and is therefore necessarily extended through four years; but the series of lectures is so arranged that each of the four divisions is complete within itself; each course presents a view of a branch of the subject such as may be desired by a large number of students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

Students who intend to take the degree of Ph. D. in meteorology, and who therefore make this the major subject in connection with several other minor courses, must pursue the whole four years' course. Those who desire merely to enter the service of the United States Weather Bureau will probably find the first year's course sufficient to enable them to pass the necessary civil-service examinations. Those who desire to do work in climatological study should also take the second year. The third year's course is designed for those who wish to perfect themselves in methods of making local weather forecasts. Finally, the fourth year's course will serve as an abundant introduction to the present state of our knowledge of the mechanics and physics of the atmosphere. In addition to the lectures, the instructor will give one hour a week to a quiz-class, in which, by question and answer, he will seek to remove any difficulties that remain.

1. OBSERVATIONAL METEOROLOGY.—The methods of observation; the simpler instruments, their errors, corrections, and reductions; the use of

self-registers; the forms of record and computation; personal diary of the weather.

TIME.—About eighty lectures, or two hours a week, as also eighty other hours of personal investigation of instruments, especially self-registers.

Algebra and trigonometry are necessary preliminaries to this course. Elementary laboratory physics, as illustrated by Hall and Bergen's text-book, is desirable as a preliminary, but may be pursued as a concomitant study. The German language is earnestly recommended as a concomitant. The differential and integral calculus will be needed as preliminary to the Graduate Course in Meteorology. (See page 108.)

2. Climatology, both local and general; empirical meteorolgy, generalizations, averages, periodicities, irregularities. The relation of climate to geology, to vegetation, to animal life, and to anthropology.

TIME.—About forty lectures and four hours weekly given to the investigation of special problems proposed in each lecture.

Students should be familiar with the use of logarithms; the method of least squares; the laws of chance; the details of physical geography, orography, geology, and ocean currents; the physiology of plants and animals; the distribution of species; physical astronomy, especially that of the sun, earth, and moon; terrestrial magnetism; the chemistry of the atmosphere; the biology of atmospheric dust. Physical laboratory work on radiation, conduction and absorption of heat, and on condensation and evaporation of vapor, and on elementary electricity, is recommended, while German, the calculus and analytic mechanics should be continued as preliminary to the Graduate Course. (See page 108.)

TIME.—Eighty lectures and an additional four hours a week given to special reading and investigation and to the preparation of the final thesis, as closing the four years' course.

CONCOMITANT STUDIES.—Riemann's "Differential Gleichungen;" Auerbach's "Hydrodynamics;" Lamb's "Fluid Motions" (new edition); physical laboratory work in gaseous motions, optical and electrical phenomena.

For Graduate Studies in Meteorology, see under head of "Graduate School."

## Department of Mineralogy and Geology.

PROFESSOR YEATES, Head of Department.
MR. CHANDLER, Assistant.

### MINERALOGY.

1. Descriptive Mineralogy. Two hours per week for one term.
Dana's Text-book of Mineralogy.
2. Determinative Mineralogy. Eight hours per week for two years.
Brush's Manual of Determinative Mineralogy.

This is a practical course, comprising the determination of minerals by means of the blow-pipe and the study of the physical characters of minerals by use of a set of well-selected specimens. Short courses in the identification of gems and ornamental stones and in blow-pipe assaying are provided for in the second year.

3. Crystallography. Two hours per week for one year.

Williams' Elements of Crystallography and Dana's System of Mineralogy (sixth edition).

4. Petrography.

Iddings' Translation and Abridgment of Rosenbusch's Microscopical Physiography of the Rock-making Minerals.

GEOLOGY.

The course in Geology will be taught by the use of models, charts, photographs, lantern-slides, rock specimens and fossils, and by field observations.

From time to time during the year excursions will be made, and the various formations in and around the District of Columbia will be studied.

1. Physical Geography. Two hours per week for one term.

Text-book: Appleton's Physical Geography.

2. Structural and Dynamic Geology. Two hours per week for one term.

3. Historical Geology. Two hours per week for one term.

4. Paleontology. Two hours per week for one year.

5. Paleobotany. Two hours per week for one term.

Text-book: Le Conte's Elements of Geology (1891). Reference books: Dana's Manual of Geology; Merrill's "Stones for Building and Decoration."

**Department of Physics and Electrical Engineering.**

INSTRUCTOR LEWIS, Head of Department.
MR. BUMSTEAD, Assistant.
MR. WOLFF, Assistant.

1. General Physics, two hours a week for one year. First term: Mechanics, Sound, and Heat. Second term: Light, Electricity, and Magnetism.

Barker's Physics (Advanced Course, American Science Series) will be used as a text-book. The course will be fully illustrated by experiments; working models of steam-engines, dynamos, and motors will be shown, and practical physical measurements will be made before the class.

The students who are candidates for degrees are required to perform about fifteen typical experiments in the laboratory.

2. Elementary Mathematical Theory of Electricity. Two hours per week for one term.

3. Dynamo-electrical Machinery. Two hours per week for one term. Slingo and Brooker's Electrical Engineering will be used as a basis.

4. Advanced Mathematical Theory of Electricity and alternating current machinery. Two hours per week for one term. Lectures based on Gerard, Emtage, Thompson, and other authorities.

5. Technical Applications of Electricity. Two hours per week for one term.

6 Thermo-dynamics and the Steam-engine. Two hours per week for one term.

Text-book: Holmes' Steam-engine.

7. Physical Laboratory. Three hours per week for one year. The exercises will include the fundamental measurements and experiments in all branches of Physics, including the following in Electricity and Magnetism: Map of magnetic field, determination of horizontal component of earth's magnetism, distribution of magnetism, qualitative electrostatic experiments, use of Wheatstone bridge, tangent galvanometer, determination of electro-motive force, electro-magnet induction, measurement of current by water and copper voltameter, magnetic dip by earth inductor.

8. Advanced Laboratory Work. Six hours per week for one year.

9. Inspection of Electric Plants.

For Graduate Studies in Solar and Mathematical Physics, see under head of "Graduate School."

### Department of Romance Languages.

PROFESSOR LODGE, Head of Department.
MR. RAMSEY, Assistant in Spanish.

1. FIRST YEAR.—Two hours per week. The class is drilled in French pronunciation, grammar, and composition; exercises in conversation. After some easy French by way of introduction, Histoire d'un Conscrit is read.

2. SECOND YEAR.—Two hours per week. Critical study of syntax; Composition; Dictation. Le Cid, Histoire du Peuple Français, Andromaque, Bug-Jargal, and L'Avare are read.

3. THIRD YEAR.—Two hours per week. Study of idioms; frequent recitations in French; Composition of French essays; Conversation; Lectures on the development of the French language and literature; selections from De Staël, Hugo, Lamartine, Souvestre, Sandeau, and Scribe.

For Graduate Studies in French, see under head of "Graduate School."

4. SPANISH LANGUAGE.—Two hours weekly for two years. Students will be drilled in pronunciation, in hearing the spoken language, and

in writing from dictation. The grammatical structure of the language will be presented, accompanied by practice in reading from modern Spanish and Spanish-American authors.

Text-book: Ramsey's Text-Book of Modern Spanish.

### Department of Zoölogy.

PROFESSOR GILL, Head of Department.
DR. STILES, Instructor in Histology.

For Graduate Studies in Zoölogy, see under head of "Graduate School."

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least six weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculty at least four weeks before the date of commencement."

"Examinations for *prizes* in each of the said Departments, and for the Degree of Master of Arts in the College, shall be closed at least five weeks before the end of the scholastic year, and the names of the successful candidates for either shall be reported at least three weeks before the date of commencement."

### Certificates, Diplomas, and Degrees.

To the foregoing subjects a definite value or weight is assigned, the unit being, in general, one recitation a week for a year, with a satisfactory examination sustained at the close. (The unit in Designing work is two hours a week for one year. The unit in Field-work will vary according to circumstances.)

A student completing certain related branches of one department, and passing a satisfactory examination, will receive a Certificate of proficiency.

A student completing all the studies prescribed for any department of which the course extends over two or more years will receive a Diploma.

The degree of Bachelor of Science is conferred upon a student who successfully completes the courses offered or other equivalent courses, aggregating not less than sixty units, which have been approved by the Faculty.

For the courses of study in the Graduate School and the requirements

for admission to the degrees of A. M., M. S., C. E., E. E., and Ph. D., see under head of "Graduate School."

### Requirements for Admission.

Candidates for the degree of Bachelor of Science must have a good knowledge of Arithmetic in all its branches, of Geography as taught in the best schools, English Grammar, Orthography and Composition, Elements of Algebra and Geometry. Special students must be competent to pursue the special study selected.

No student will be admitted to any class until after matriculation—that is, until after first reporting his name to the President or the Dean of the Faculty, and receiving the certificate of the financial agent that the required tuition fees have been paid.

### Prizes.

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of Fifty Dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

To stimulate students in Engineering, prizes are offered by Francis R. Fava, Jr., Professor of Engineering, to students who attain certain standards in the following branches in the several years of the course:

1. The Designing problem in Building Construction (2d year).
2. A Report on Engineering Work with which the student has been connected during his vacation (3d year).
3. An Investigation in Graphical Statics (4th year).
4. The Degree Work (Graduate School).

The Prizes are awarded by Committees of eminent Engineers, outside of the University, invited for this purpose by the President of the Institution. The prize or prizes are given not merely for the *best* among all papers presented, but only for work reaching a certain *standard* required by the specifications. Thus, one student, even if alone, can compete for a prize, or, in the same class, several students can win prizes at the same time.

In order to be admitted to a prize competition an applicant must be at the time a student of that particular class in which the prize is offered and have a satisfactory standing in all the Departments for which he is registered.

Prizes 1 to 3 consist of valuable Engineering works, and Prize 4 of a medal.

The Willie E. Fitch Prize was awarded in 1892 to H. H. Hawling. The Fava Prize was awarded in 1891 to C. C. J. Norris for excellence in the Degree Work in Civil Engineering.

### Annual Tuition Fees.

| | |
|---|---|
| For single courses of study not involving any laboratory, designing or field work | $30 00 |
| For full courses (in addition to laboratory fees) | 90 00 |
| Laboratory Courses in Chemical Laboratory | 100 00 |
| For chemicals used | 25 00 |
| Deposit (returnable) for apparatus injured | 25 00 |
| Laboratory Courses in Assaying of Ores and Bullion | 40 00 |
| For materials used | 20 00 |
| Laboratory Courses in Physical Laboratory | 30 00 |
| Laboratory Course in Mineralogy | 60 00 |
| For materials used | 10 00 |
| Laboratory work, field-work, and designing in Civil and Electrical Engineering | 20 00 |
| Constructive work in Drawing and Applied Geometry | 30 00 |
| For materials used | 10 00 |

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

All fees for full courses are payable, in monthly installments, in advance. Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.

A student desiring to make any change in his course of study or to drop any study must inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. Students failing to conform to this requirement are responsible for the fees entered on their certificates.

### Rooms and Board.

During the year 1892–1893 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month.

For further information regarding the Corcoran Scientific School, application may be made to

PROF. CHARLES E. MUNROE,
*Dean of the Faculty.*

N. B.—Students who wish to pursue the study of Greek in connection with the other studies prescribed in the College Course for the degree of Bachelor of Arts can do so on reporting their names to the President of the Faculty. Classes will be formed in this Department by the Rev. A. J. HUNTINGTON, D. D., Professor of Greek in the Columbian College.

## STUDENTS.

### Candidates for the Degree of Doctor of Philosophy.

| Name. | Residence. |
|---|---|
| Knowlton, Frank Hall, B. S., 1884; M. S., 1887, Middlebury. | Maryland. |
| Orleman, Daisy M., M. D., 1890, Columbian University. | District of Columbia. |
| Yeates, William Smith, A. B., 1878; A. M., 1881, Emory & Henry. | District of Columbia. |

### Candidates for the Degree of Master of Science.

| Name. | Residence. |
|---|---|
| Chandler, George Vose, | District of Columbia. |
| Tucker, George Prescott, S. B., 1887, Worcester Poly. Inst. | Nebraska. |

### Candidates for the Degree of Civil Engineer.

| Name. | Residence. |
|---|---|
| Aspinwall, William Humphrey, | Pennsylvania. |
| Davis, Harold, | Ohio. |
| De Land, Theodore L., Jr., | Illinois. |
| Deming, William I., | District of Columbia. |
| Grove, George W., | District of Columbia. |
| Harrington, Ward B., | District of Columbia. |
| Hart, Franklin Wilson, | District of Columbia. |
| Johnson, John Scott, | Texas. |
| Jones, Charles C., | West Virginia. |
| Lamson, William Mather, | District of Columbia. |
| Meigs, John, Jr., | District of Columbia. |
| Muir, Edward Adams, | Pennsylvania. |
| Pendleton, Joseph Saxton, | District of Columbia. |
| Perry George Franklin, | District of Columbia. |
| North, Hilda, | District of Columbia. |
| Stevens, Percy Egbert, | District of Columbia. |
| Thurston, Ernest Lawton, | District of Columbia. |
| Uribe, Eduardo J., | Colombia. |
| Walker, W. J., | District of Columbia. |

### Candidates for the Degree of Electrical Engineer.

| Name. | Residence. |
|---|---|
| Elguera, Manuel, M. E., Lima Polyt. | Peru. |
| Griffin, William G., | District of Columbia. |
| King, William Randolph, | Mississippi. |
| Mayers, Charles Harrison, | West Virginia. |
| Moran, Frank de S., | District of Columbia. |
| Muir, Edward Adams, | Pennsylvania. |
| O'Farrell, Patrick H., | District of Columbia. |
| Stauffer, Henry Edgar, | Delaware. |

### Candidates for the Degree of Bachelor of Science.

| Name. | Residence. |
|---|---|
| Bayley, Margaret, | District of Columbia |
| Boettcher, Frederick Ludwig Johannes, | Virginia. |
| Boykin, Basil Manly, | Georgia. |
| Ewell, Ervin Edgar, | Michigan. |
| Falconer, Bolivar L., | Texas. |
| Fuelling, J. L., | District of Columbia. |
| Johnson, John Scott, | Texas. |
| Jones, Charles C., | West Virginia. |
| McMichael, S. J., | South Carolina. |
| Pressey, Harry Albert, | Maine. |
| Ramsey, Marathon Montrose, | West Virginia. |
| Randall, Walter Bailey, | Louisiana. |
| Rice, Herbert Louis, | Illinois. |
| Schneider, Oscar John, | Wisconsin. |

## SPECIAL STUDENTS.

### Abbreviations.

A. C.—Analytical Chemistry.
ANTH.—Anthropology.
ARCH. DR.—Architectural Drawing.
AS.—Assaying.
AST.—Astronomy.
B.—Botany.
B'P.—Blowpipe.
C.—Chemistry.
C. E.—Civil Engineering.
E.—English.
ELECT.—Electricity.
F.—French.
GEOL.—Geology.
GER.—German.
G.—Greek.
L.—Latin.
M.—Mathematics.
MECH. DR.—Mechanical Drawing.
MET.—Meteorology.
MIN.—Mineralogy.
N. S.—Natural Science.
PHIL.—Philosophy.
P.—Physiology.
PHYS.—Physics.
PSY.—Psychology.
TOP. DR.—Topographical Drawing.
Z.—Zoölogy.

| | | |
|---|---|---|
| Adams, John Arthur, | D. C., | Top. Dr. |
| Alsop, E. W., | Md., | C. |
| Ammen, Ulysses Grant, | Md., | C., M., Mech. Dr. |
| Appleman, Frank S., | Ohio, | Phys., Elect. |
| Armstrong, John E., | N. Y., | E., M., F., Ger., Geol. |
| Arnold, F. S., | D. C., | C., M., Mech. Dr. |
| Arnold, Mrs. F. S., | N. J., | E. |
| Bannon, Alice L., | D. C., | Ger. |
| Barnard, Wm. F., | Pa., | M. |
| Beeler, George L., | Ill., | M., F., Ger., Arch., Mech., and Top. Dr. |
| Bell, Hettie, | D. C., | M. |
| Beck, Winfred. | S. C., | M. |
| Bogley, Edwin Hamilton, | Md., | M., Arch. Dr., Mech. Dr. |
| Bolles, F. G. | Wis., | M., Ger., Phys., Elect., Mech. Dr. |
| Bradford, Mary Knight, | Mass., | M., Arch. Dr. |
| Brand, W. D., | D. C., | C., Phys. |
| Broun, C. L.. | Va., | M., Phys., Elect., Mech. Dr. |
| Brown, W. W., | Tenn., | E., M., F. |
| Bullock, Julia E., | D. C., | M. |
| Burger, L., | D. C., | Phys., Elect. |
| Burke, Raymond L., | Va., | C., E., F., Ger., Mech. Dr. |
| Bush, Anna B., | N. Y., | E. |
| Camp, Harold, | D. C., | E., M., F. |
| Carlyle, Frederic W., | N. Y., | Arch. Dr. |
| Carson, Edith M., | D. C., | Mech. Dr. |
| Churchill, F. L., | Wis., | Geol., Min. |

Coleman, Mary M., Va., E.
Cook, De Witt C., N. Y., E., M., F., G., Psy., Ast., Top. Dr.
Cottrell, K. W., D. C., E.
Craig, C. R., S. C., M.
Daly, Bartholomew, D. C., A. C.
B. S., Columbian University, 1891.
Daniel, E. H., D. C., M., Phys., Mech. Dr., Top. Dr.
Dickerson, Ada G., D. C., Ger.
Duggan, J. F., Miss., Ger.
Durant, H. B.. Ohio, M., Phys., Mech. Dr.
LL. B., 1891, LL. M., 1892, Columbian University.
Ellis, Florence V., D. C., M.
Esty, Warren B., R. I., E.
Fairly, Frances S., D. C., Psy.
Faulkner, W. T., Miss., E., M.
Fischer, Samuel, Ky., M., Phys., Elect.
Forrest, Julius C., D. C., M.
Fowler, Harry B., D. C., M., E., Ger., Mech. Dr.
Gambrill, Maria, Ga., Ger.
Gapen, Clinton T., D. C., Top. Dr.
Gardner, Howard S., D. C, M.
Gensler, A. C., D. C., Mech. Dr.
Geyer, Blanche M., D. C., Arch. Dr.
Gilliss, C. T., Ill., C., E., M., Mech. Dr.
Gordon, Alex., Jr., D. C., M., Ger., Phys., Elect., Mech. Dr.
Graham, H. H., D. C., E., M., L.
Grosvenor, Gertrude, D. C., Ger.
Gulick, Charles L., D. C., C., M., Mech. Dr.
Harlan, Rolvix, D. C., M.
Harvey, E. L., N. Y., Phys.
Hawling, H. H., D. C., C.
Haycock, G. S. R., D. C., Phys., Elect.
Hayden, Frank, W.Va., F., L.
Hayden, Raphael, W.Va., F., L.
Hepburn, Fannie N., D. C., Ger.
Hoffman, W. Maurice, D. C., L.
Hollingsworth, Sidney P., Va., E., M., F.
M. D., National University, 1886.
Holt, Frank Wilber, Wis., Elect.
B. C. E., 1885, University of Wisconsin.
LL. B., 1888, LL. M., 1889, Columbian University.
Hubbard, W. F., D. C., M.

Jenkins, Thomas L., N. C., M.
Jennings, James Henry, D. C., C. E., Arch. Dr.
Ph. B., 1887, Sheffield Scientific School.
Jones, Hattie, N. Y., M.
Jones, J. Gordon, N. H., M.
Jordan, Harry C., D. C., M.
Kemball, W. M., D. C., Mech. Dr.
Kerr, W. H., Mo., M.
Keyser, Charles E., D. C., As.
Kluge, Anna A., Iowa, E.
Lane, Cyrus M., Mo., Arch. Dr.
Levêque, Anna H., Ind., F.
Lewis, Edward Smith, D. C., A. C.
A. M., University of California, 1892.
Lichty, J. B., Ill., M., Phys., C. E., Mech. Dr.
Littlefield, Charles A., D. C., Mech. Dr.
Luckett, Dinwiddie J., Md., M., C. E.
McNally, Joseph J., Iowa, M.
Mann, Horace, D. C., E., Ger., C. E.
Mattingly, P. H., D. C., M., Arch. Dr., Mech. Dr.
Maurin, Timothy Francis, La., A. C.
Merillat, M. J., D. C., M.
Miller, Hiram, Jr., D. C., M., Ger., Arch. Dr., L.
Mitchell, B. F., Kan. M., Phys., Mech. Dr.
Moreland, W. S., S. C., M.
Norris, Calvin C. J., Ill., Elect.
C. E., Columbian University, 1891.
Noyes, E. R., D. C., A. C.
Oertly, David H., D. C., M.
Pettigrew, Augusta M., Me., Ger., Psy.
M. D., Columbian University, 1891.
Phelps, Charles Preston, D. C., A. C.
Pittis, E. A., Ohio, Arch., Mech., and Top. Dr.
Probasco, Wallace M., Ohio, M., F., Ger., Phys., Elect.
Purman, James W., D. C., A. C., As.
Raber, Katherine M., D. C., E.
Ramsey, E. P., N. J., Elect.
Reeves, Beulah Belle, D. C., Arch. Dr.
Rose, W. P., Va., M., Mech. Dr.
Rosen, George E., Ky., M.
Ruebsam, Ernest Carl, D. C., Phys., Elect.
C. E., Columbian University, 1892.

| | | |
|---|---|---|
| Runyan, E. G., | Mich., | Geol., Min. |
| B. S., 1889, Columbian University. | | |
| Saul, John A., | D. C., | Mech. Dr. |
| Slate, Wm. W., | Vt., | C. |
| Slater, H. D., | D. C., | M. |
| Snowden, Elizabeth V., | D. C., | Ger. |
| Snyder, Rev. Wm. Tayloe, | D. C., | Psy. |
| Stetson, C. Rochford, | D. C., | A. C. |
| Steward, Willard Gilbert, | La., | Phys., Elect. |
| C. E., Columbian University, 1891. | | |
| Strong, George W., | D. C., | M. |
| Swann, John Joseph, | D. C., | M., Ger. |
| Swearingen, Henry B., | Ohio, | M., C. E., Mech. Dr., Top. Dr. |
| A. B., Kenyon College, 1888. | | |
| Talcott, E. M., | D. C., | M. |
| Tasker, Vernon C., | D. C., | M. |
| Taylor, A. A., | Ohio, | E. |
| Taylor, S. G., | Ohio, | Arch. Dr. |
| Taylor, T. C, | Ohio, | M., Arch. Dr. |
| Thompson, C. F., | D. C., | Phys. |
| Thompson, N. G., | D. C., | M., C. E. |
| Vale, F. P., | D. C., | Geol. |
| Walker, Eva, | D. C., | C. |
| Walker, W. Pinckney, | D. C., | M., Mech. Dr., Top. Dr. |
| Watson, Maud, | D. C., | L. |
| Weeks, Fred. B., | Kan. | Top. Dr. |
| Wheeler, Nellie, | Mo. | E. |
| White, Edward Lowry, | D. C., | M., Ger., Phys., Elect., Mech. Dr. |
| Whitty, E. F., | D. C., | As. |
| Wilson, Anne E., | S. C., | Ger. |
| Woollen, Albert S., | Ind., | M. |

Students in the Scientific School . . 174

**Recapitulation.**

| | |
|---|---|
| Students of Law | 348 |
| Students of Medicine | 161 |
| Students of Dentistry | 46 |
| Students in Arts and Sciences | 236 |
| Aggregate | 791 |
| Students in the Preparatory School | 74 |
| Total | 865 |

# THE GRADUATE SCHOOL.

**Faculty.**

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of History.

CHARLES E. MUNROE, S. B., DEAN,
Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of English.

ANDREW P. MONTAGUE, A. M., PH. D.,
Professor of Latin.

J. HOWARD GORE, B. S., PH. D.,
Professor of Mathematics.

LEE D. LODGE, A. M., PH. D.,
Professor of French.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, M. D., PH. D.,
Professor of Zoölogy.

OTIS T. MASON, A. M., PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, A. M., PH. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

EDGAR FRISBY, A. M., U. S. N.,
Professor of Astronomy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

WILLIAM T. HARRIS, LL. D.,
Professor of Philosophy.

EMIL A. DE SCHWEINITZ, PH. D.,
Professor of Bio-Chemistry.

F. W. CLARKE, S. B.,
Professor of Mineral Chemistry.

HARVEY W. WILEY, A. M., M. D., PH. D.,
Professor of Agricultural Chemistry.

THE REV. FRANK H. BIGELOW, A. M.,
Professor of Solar Physics.

ALEXANDER S. CHRISTIE, A. M., LL M.,
Professor of Mathematical Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology.

EXUM PERCY LEWIS, B. S.,
Instructor in Electrical Engineering.

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The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and will be opened for the reception of students on Thursday, the 5th of October, 1893.

The School will be opened each year with a public address by a member of the Faculty. The opening address of the scholastic year 1893–'94 will be delivered by the President of the University, who will take for his topic, "The Science of Universal History, considered as the indispensable complement of the Physical Sciences."

### Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.). Civil Engineer (C. E.), Electrical Engineer (E. E.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors of the School; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors.

### Masters' Degrees.

Persons holding degrees of A. B. from institutions of repute are qualified to enter as candidates for the degree of A. M., and those holding S. B. degrees for the degree of M. S.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present a satisfactory thesis on this subject.

### Engineering Degrees.

Persons holding the degree of S. B. in Engineering courses, or their equivalent from institutions of repute, are qualified to enter as candidates for the degrees of C. E. and E. E.

Candidates to be eligible shall pass at this University one year in the advanced study of engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

The matriculation fee of candidates for Masters' or Engineering degrees is ten dollars, the annual fee for instruction and direction ninety dollars, and the fee for laboratory courses the same as that of candidates for the Doctor's degree.

### Doctors' Degrees.

Persons holding degrees of Master in Science, Art, or their equivalent, from institutions of repute, are qualified to offer themselves as candidates for the degree of Ph. D.

Candidates for the degree of Ph. D. shall offer themselves in three topics for advanced study—one major and two collateral minor subjects. Before being admitted as candidates they shall pass satisfactory examinations in French and German, shall pay an examination fee of five dollars for the examination in each of these tongues, and shall pay a matriculation fee of ten dollars.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in study at this University; they shall sustain satisfactory

examinations upon the three subjects which they may have elected, and they shall present theses embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts, and shall accompany with an exhaustive bibliography.

The annual fee for candidates for a doctor's degree is ninety dollars where no laboratory courses are taken. Where laboratory courses are taken the fee in excess of this sum will be fixed according to regulations prescribed by the Board of Directors with the approval of the corporation. The matriculation fee will be remitted to those who have taken the master's degree in this University.

### Courses of Study in the Graduate School.

The following courses of study are offered to students in the Graduate School. Candidates for the degree of Ph. D. will be required to select their major subject from among those offered below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors of the Graduate School.

### Board of Directors of University Studies.

JAMES C. WELLING, LL. D., President, and Professor of History.
CHARLES E. MUNROE, S. B., Dean, and Professor of Chemistry.
The Rev. A. J. HUNTINGTON, D. D., Professor of Greek.
The Rev. SAMUEL M. SHUTE, D. D., Professor of English.
THEODORE N. GILL, M. D., Ph. D., Professor of Zoölogy.
OTIS T. MASON, A. M., Ph. D., Lecturer on Anthropology.
CLEVELAND ABBE, A. M., Ph. D., Professor of Meteorology.
D. KERFOOT SHUTE, A. B., M. D., Professor of Anatomy.
J. HOWARD GORE, B. S., Ph. D., Professor of Mathematics.
LEE D. LODGE, A. M., Ph. D., Professor of French.
HERMANN SCHÖNFELD, Ph. D., Professor of German.
The Rev. J. MACBRIDE STERRETT, D. D., Professor of Philosophy.
The Rev. FRANK H. BIGELOW, A. M., Professor of Solar Physics.

Inquiries for special information concerning graduate studies in Language, in Speculative Philosophy, in Moral, Political, and Historical Philosophy, and in Anthropology should be addressed to the President of the University.

Inquiries for special information concerning graduate studies in Mathematics, in Astronomy, in Chemistry and Physics, in Geology, in Zoölogy, in Comparative Anatomy, in Meteorology, and in Civil and Electrical Engineering should be addressed to the Dean of the Graduate School.

### Graduate School of English.

PROFESSOR SHUTE.

Graduate studies in this School are offered in—I. English Etymology; II. English Literature; III. American Literature; IV. Anglo-Saxon Prose and Verse, leading, according to prescribed groupings and range of studies, to the degree of Master of Arts or Doctor of Philosophy.

### Graduate School of Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

I. Herodotus and Thucydides.

II. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.

III. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.

II. The Tragic Poets.

III. Plato or Aristotle.

### Graduate School of Latin.

PROFESSOR MONTAGUE.

I. Plautus; Terence; Lucretius; Thesis on the Rise and Development of the Roman Drama.

II. Cicero; Livy; Catullus; Thesis on the Source and Character of Roman History.

III. Pliny the Elder; Pliny the Younger; Suetonius; Tacitus; Thesis on Oratory under the Empire.

Groupings and range of studies for the degrees of Master of Arts and Doctor of Philosophy, respectively, subject to arrangement.

### Graduate School of French Philosophy.

PROFESSOR LODGE.

The following courses in French Philosophy and in the French Language and Literature are offered to graduate students:

I. A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.

Text-book: Weber's Histoire de la Philosophie Européenne.

*a.* Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth century.

*b.* Mediæval French Philosophy.

II. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.

III. The Eighteenth Century; Voltaire; The Encyclopédie.

IV. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy: Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

V. Political Philosophy: La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several departments of the Government and of Congress.

### Graduate School of German.

PROFESSOR SCHÖNFELD.

I. History of German Literature, with references to Oelmar, Scherer, Kurz, and König.

II. Critical Study of the Nibelungenlied, Zarncke's edition.

III. Literature of the Renaissance and Reformation, with special reference to Erasmus, Ulrich von Hutten, Luther, Murner, Fischart.

IV. History of the Middle Ages, from the beginning of the migrations of peoples to the establishment of the Feudal System and the evolution of European States.

The grouping of studies and the range of research for the degrees, respectively, of Master of Arts and of Doctor of Philosophy subject to arrangement.

The archives of the National Capital will be utilized for research work.

### Graduate School of Philosophy.

PROFESSOR STERRETT and PROFESSOR HARRIS.

The following courses are offered for the degrees of A. M. and Ph. D.:

I. Aristotle's Ethics and Politics.

II. The Ethical Theories of Hobbs, Bentham, Mill, and Spencer.

III. The Ethics of Kant and Hegel's Rechtsphilosophie.

IV. Kant's Critique of the Pure Reason and his Critique of the Judgment.

V. Hegel's Logik and Philosophie des Geistes.
VI. The Philosophy of Religion, Hegel and Pfleiderer.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Other equivalent courses may be concerted with the Professor in charge.

PROFESSOR WILLIAM T. HARRIS, LL.D.,
Commissioner United States Bureau of Education.

Dr. HARRIS will coöperate with Dr. STERRETT in carrying out certain of the courses above outlined, and will offer special courses in—

1. The exposition of Hegel's Æsthetik;
2. The exposition of Hegel's Philosophy of History; and
3. The History of Philosophy:
   *a.* The relation of Greek to German Philosophy.
   *b.* German Philosophy from Kant to Hegel.

## PRESIDENT WELLING.

FOR THE DEGREE OF MASTER OF ARTS.

I. The historical significance of the so-called "Quarrel of the Ancients and the Moderns" in the 17th century, with critical references under this head to the writings and influence of Fontenelle, Perrault, Pascal, Boileau, Sir William Temple, Wotton, Bentley, Dean Swift, Boyle, and others. Rigault's "Histoire de la Querelle des Anciens et des Modernes" will be used as a literary guide-book in the conduct of this investigation, which, however, will have for its main object to prompt an original inquiry into the sources of the philosophical idea of human progress. Or—

II. The specific contributions made by the Government of the United States to the improvement of International Law: A critical study and amplification of Wharton's Digest, with an original thesis on the "Right of Asylum," historically and theoretically considered.

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Analytic investigations will here be combined with a study of synthetic philosophies, and will comprise—

I. Original study and investigation in a formative epoch of history, such as—

*a.* The Conversion of the Roman Empire to Christianity.
*b.* The Rise and Formation of the Temporal Power of the Papacy.
*c.* The Renaissance.
*d.* The Political Awakening in the 18th Century: Causes of the American and the French Revolutions.

*e.* The New Intellectual Awakening: The Rise and Influence of Modern Scientific Method.

Historical experts will be called to assist in directing the investigation of these epochs.

II. A Critique of the Philosophy of History, in the successive stages of its elaboration, from Epiphanius and St. Augustine to Hegel, Comte, and Draper. This critique of the formal philosophies of history will be checked at all points by the comparative method of anthropological science, and the student will be required to take Part II (Culturgeschichte) of the graduate course in Anthropology. (See p. 107.)

### Graduate School of Mathematics.

PROFESSOR GORE.

For the degree of Master of Arts: Higher Plane Curves (Salmon); Modern Higher Algebra (Salmon).

### Graduate School of Solar Physics.

PROFESSOR FRANK H. BIGELOW,
Of the United States Weather Bureau.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Magnetism, Cosmical Electricity, and Magnetism, with their relations to Meteorology:

I. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots, and allied problems in solar physics, giving the grounds for the recent developments of the theory that the sun is a polarized sphere, surrounded by a magnetic field, which is the basis of these phenomena.

II. COSMICAL ELECTRICITY AND MAGNETISM.—The two fields of force emanating from the sun, their mode of propagation through the æther, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

III. TERRESTRIAL MAGNETISM.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instruments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of science of each portion. Authors: Gauss, Lloyd. Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

IV. METEOROLOGY.—The thermo-dynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to

the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

### Graduate School of Mathematical Physics.

PROFESSOR ALEXANDER S. CHRISTIE,
Of the United States Coast and Geodetic Survey.

Graduate studies for the degree of Doctor of Philosophy in Mathematical Physics:

The course will be based upon the *Traité de Physique Mathématique* of Emile Mathieu, 7 vols., 4to, Paris, 1873–'90. This work deals with the methods of integration in mathematical physics, the theory of capillarity, the theory of the potential, with its applications to electricity and magnetism; the theory of electro-dynamics, and the theory of the elasticity of solid bodies.

### Graduate School of Theoretical Astronomy.

PROFESSOR EDGAR FRISBY, U. S. N.,
Of the United States Naval Observatory.
PROFESSOR WILLIAM C. WINLOCK,
Of the Smithsonian Institution.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

I. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers' Method, Abhandlungen, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

II. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's Theoria Motûs. Books of reference, as above.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, Mécanique Céleste. An abstract should here be made for the initiation of the student into this most extensive subject. Books of reference: Laplace, Mécanique Céleste; Lagrange, Mécanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, &c.

### Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

### Graduate School of Chemistry.

PROFESSOR MUNROE.

Schemes of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE,
Chief Chemist of the United States Geological Survey.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the construction of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY,
Chief Chemist of the Department of Agriculture.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ,
Of the Bureau of Animal Industry.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artificial media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

### Department of Zoölogy.

PROFESSOR GILL, Head of Department,
Honorary Curator in the Smithsonian Institution.

DOCTOR STILES, Instructor in Histology,
Of the Bureau of Animal Industry.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

### Graduate School of Anthropology.

DR. OTIS T. MASON,
Curator in the United States National Museum.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, and history as is taught in our best colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, and Lang are used as text, with readings in the journals of the four great Anthropological societies.

### Comparative Osteology and Artistic Anatomy.

PROFESSOR D. K. SHUTE.

The special studies in this branch comprise—

I. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations (especial atten-

tion to be given to the subject of Homologies); the Human Form and its Variations (the latter as affected by occupation, age, sex, disease, etc.,

II. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superfices of the Living Model as will enable the Artist to understand the Statics and Kinetics of the Human Body; Methods of studying the Proportions of the Human Body, etc.

## Graduate School of Meteorology.

PROFESSOR ABBE,
Of the United States Weather Bureau.

The following scheme of studies in Meteorology, subject to arrangement between the teacher and his pupils, is offered for the degree of Doctor of Philosophy:

I. Practical meteorology; the daily weather chart; the empiric laws of weather changes as depending on meteorological data, and the arrangement of continents, plateaus, mountains, oceans, etc.; weather types and typical weather charts; prediction of daily weather and seasonal climates; verification of predictions.

TIME.—About forty lectures and at least five hours a week additional, in verifying old laws and studying new ones, in making and verifying predictions.

CONCOMITANT STUDIES.—Methods of chart projection; experimental laboratory work in both steady and discontinuous motions of fluids and gases; mathematical and experimental electricity; the laws of refraction and interference of light; elementary hydrodynamics and thermodynamics; differential equations and definite integrals; the German language.

II. Theoretical meteorology. Insolation. The absorption, conduction, and radiation of heat by the air and the earth. The thermo-dynamics of the atmosphere; the graphic methods of Herz and Bezold. Convective equilibrium, as applied to the atmosphere of the sun by Lane, and to that of the earth by Sir William Thomson (Lord Kelvin) and his successors. Motion on a rotating globe; Ferrel's and other simple approximate relations between baric gradients and the wind and temperature; Ferrel's general circulation of the atmosphere and his cyclones and pericyclones and tornados. Galton's cyclone and anti-cyclone. Fourier's most general equations of gaseous motions. Oberbeck's general circulation. Helmholtz's horizontal rolls. The investigations of Diro Kitao, Guldberg and Mohn, Marchi, Boussinesq, A. Poincaré, Sprung, Siemens, Moeller, Ritter, and others into the motions of the atmosphere. Vis-

cosity and discontinuous movements. The possible special solutions of the general equations of fluid motions that apply to the true atmospheric circulation, both on the earth and on the other planets. Atmospheric tides; theories of Laplace, Ferrel, Rayleigh, Margules, A. Poincaré. Theories of atmospheric electricity.

### Graduate School of Geology.

PROFESSOR MERRILL,
Curator in United States National Museum.

This School offers facilities for advanced study in physical geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course as planned presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitative chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

During the first year the student may devote his time largely, if necessary, to perfecting himself in methods, to general work in the laboratory and in the field, to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote himself to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be modified to suit individual cases in order that the student be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic

geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to the subjects of strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

**Graduate School of Civil Engineering and Applied Mathematics.**

PROFESSOR FAVA.

Students holding the degree of B. S. in Civil Engineering (Course II) of the Corcoran Scientific School or its equivalent can obtain the degree of C. E. by pursuing studies in this Department for one year, as shown below:

The studies will embrace courses 12 and 13 in the Department of Applied Mathematics of the Corcoran Scientific School, courses 10, 13, 19, and 20 in the Department of Engineering, and course 9 in the Department of Chemistry of the same school; also the law of contracts, political economy, and the elements of business practice. According to personal option, either Engineering courses 22 and 23 of the Corcoran Scientific School in a mechanical direction, or Engineering courses 25, 26, and 27 of the same school in a building construction direction, are recommended. Owing to the large field for the employment of engineers in Spanish-American countries, the Spanish language is recommended for study.

Besides these studies, a complex practical problem of a certain magnitude is given to the applicants for the degree of Civil Engineer immediately after they have obtained the degree of B. S. in course II. This problem is to be solved during the following year as thesis work. The candidate is placed in the same position as the practising engineer; he has to collect his own data, make his surveys, and is allowed to draw his information from all available sources; but he is expected to furnish a comprehensive report and exhibits, drawings, estimates, etc., which will be complete, and throughout satisfactory as to contents as well as to form.

The subject selected is generally one of the great engineering problems of the day, either in the District of Columbia or outside. The subjects for graduation during the last three years have been: "A New Sewerage System for Washington City;" "A New Water Supply System for the District of Columbia;" "The Railroad Terminal Problem in Washington City;" "The Reconstruction of the Chesapeake and Ohio Canal with regard to protection from floods;" "The Utilization of the Water Power at the Great Falls of the Potomac River for the production and supply of

pneumatic power for street railroads, elevators, ventilation, and industrial purposes for the city of Washington." (For prizes for thesis work, see page 89.)

### Applied Mathematics.

The degrees of M. S. and Ph. D. can be obtained through studies in this Department in the following directions:

I. *Geometry of position*, developed by projective methods, based on the works of v. Staudt, Moebius, Steiner, Poncelet, etc. Courses 1 and 2 of the Department of Applied Mathematics of the Corcoran Scientific School and 1 to 5 of the Department of Mathematics, of the same school, and a knowledge of the German and French languages are necessary preliminaries but the knowledge of advanced mathematics, especially of the works of Chasles, Plücker, Salmon, Hesse, Cremona, and others, will greatly facilitate the study of geometry of position.

II. *Graphical Statics.*—This science, brought to a high degree of development by the work of Culmann, can be studied with either of two objects in view:

*a.* As a part of applied mechanics, when the aim is to develop new methods of calculating mechanical phenomena, such as elastic deflections, deformations of beams and elastic arcs, higher grade moments, properties of certain structures, etc.; also to apply graphostatical methods to the determinations of stresses and calculation of parts of machinery. In this direction the works of Koechlin, W. Ritter, Du Bois, "Graphical Statics," Reuleaux, and parts of Culmann are recommended for study. The German and French languages and courses 1, 2, 5, 6, 8, and 9 (Descriptive Geometry, Technical Mechanics, etc.) of the Department of Applied Mathematics of the Corcoran Scientific School are necessary, and 10 and 11 of the same Department are required.

*b.* As a part of Analytical Mechanics, based on geometry of position, the works of W. Ritter and Culmann will be more especially studied. The same prerequisite as for course *a*, with the addition of geometry of position, are necessary, and a thorough knowledge of advanced mathematics, especially determinants (Plücker's coördinates), etc., will be put in requisition.

III. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Ritter, Rankine, Bresse, etc. Courses 5, 6, 8, and 9 of the Department of Applied Mathematics of the Corcoran Scientific School, as well as the German and French languages, are required.

Other courses in various branches of applied mathematics, based on the studies scheduled in the Department of Applied Mathematics of the Corcoran Scientific School, can be arranged for on request.

### Graduate School of Electrical Engineering.

INSTRUCTOR LEWIS.

Students having obtained the degree of B. S. in Electrical Engineering (Course III) in the Corcoran Scientific School or its equivalent will receive the degree of Electrical Engineer upon pursuing a course for one year in the Graduate School, embracing the following studies:

1. Advanced laboratory work.

2. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.

3. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, estimate of cost, etc.

Concomitant studies in German and French, the Spanish language, higher mathematics, and advanced machine design, physics, and chemistry are recommended.

# CATALOGUE

OF THE

# OFFICERS AND STU

OF

# THE COLUMBIAN UNI

WASHINGTON, D.

FOR THE ACADEMIC YEAR 18

FROM THE UNIVERSITY

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SC
OF WASHINGTON.
1894.

# CALENDAR FOR 1893.

### SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
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### OCTOBER.

| S | M | T | W | T | F | S |
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| 29 | 30 | 31 | -- | -- | -- | -- |
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### NOVEMBER.

| S | M | T | W | T | F | S |
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### DECEMBER.

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| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1894.

### JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
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### FEBRUARY.

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### MARCH.

| S | M | T | W | T | F | S |
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| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
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### APRIL.

| S | M | T | W | T | F | S |
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### MAY.

| S | M | T | W | T | F | S |
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### JUNE.

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### JULY.

| S | M | T | W | T | F | S |
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| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
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### AUGUST.

| S | M | T | W | T | F | S |
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### SEPTEMBER.

| S | M | T | W | T | F | S |
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### OCTOBER.

| S | M | T | W | T | F | S |
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| 28 | 29 | 30 | 31 | -- | -- | -- |
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### NOVEMBER.

| S | M | T | W | T | F | S |
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| 25 | 26 | 27 | 28 | 29 | 30 | -- |
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### DECEMBER.

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| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
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# CALENDAR FOR 1895.

### JANUARY.

| S | M | T | W | T | F | S |
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| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
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### FEBRUARY.

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| 24 | 25 | 26 | 27 | 28 | -- | -- |
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### MARCH.

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### APRIL.

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### MAY.

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### JUNE.

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### JULY.

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| 28 | 29 | 30 | 31 | -- | -- | -- |
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### AUGUST.

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| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

# CATALOGUE

OF THE

# OFFICERS AND STUDENTS

OF

# THE COLUMBIAN UNIVERSITY,

WASHINGTON, D. C.,

FOR THE ACADEMIC YEAR 1893–'94.

FROM THE UNIVERSITY PRESS.

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1894.

## KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a center.

A—The main building of the University, southeast corner 15th and H streets N. W.
B—The Preparatory School.
CCCC—Parcels of ground belonging to the University.
D—The Medical and Dental School building.

Libraries numbered in the order of their proximity to the University.

*Within less than a five or six minutes' walk:*

1. Library of Department of Labor, 8,000 volumes.
2. " " Department of Justice, 30,000 "
3. " " Treasury Department, 22,000 "
3. " " Light-House Board, 4,000 "
4. " " Bureau of Statistics, 5,000 "
5. " " Geological Survey, 31,000 "
5. " " Bureau of Ethnology, 5,000 "
6. " " Corcoran Gallery of Art, 2,500 "
7. " " War Department, 37,000 "
7. " " Navy Department, 25,000 "
7. " " Department of State, 50,000 "
7. " " War Records Office, 2,000 "
7. " " Hydrographic Office, 3,000 "
7. " " Nautical Almanac Office, 2,000 "
8. " " Museum of Hygiene, 10,500 "

*Within a five or ten minutes' ride by the street railway:*

9. Library of United States Patent Office, 50,000 volumes.
—. " " Interior Department, 12,000 volumes.
—. " " Post Office Department, 10,000 volumes.
10. " " Bureau of Education, 30,000 volumes.
11. " " Department of Agriculture, 20,000 volumes.
12. " " Army Medical Museum, 105,000 volumes.
13. " " United States National Museum, 16,000 volumes.
14. " " United States Weather Bureau, 11,000 volumes.

*Within a fifteen minutes' ride by the street railway:*

15. The Library of Congress, 700,000 volumes.
15. The Library of the United States Supreme Court, 80,000 volumes.
15. The Library of the Smithsonian Institution, 250,000 volumes.
16. Site of the new Congressional Library.
17. Library of the United States Coast and Geodetic Survey, 12,000 volumes.
18. Site of the old United States Naval Observatory.

*Within a thirty minutes' ride by the street railway:*

Library of the new United States Naval Observatory (not indicated on map), 13,000 volumes.

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# UNIVERSITY CALENDAR.

## Current Academic Year, 1893–'94.

1893.

| | | |
|---|---|---|
| Sept. | 15. } Examination of Candidates for admission { | Friday. |
| | 16. } to College, { | Saturday. |
| Sept. | 18.—First College Term begins. | Monday. |
| Sept. | 18.—First Term of Preparatory School begins. | Monday. |
| Oct. | 2.—Session of Medical School begins. | Monday. |
| Oct. | 3.—Session of Corcoran School begins. | Tuesday. |
| Oct. | 4.—Session of Law School begins. | Wednesday. |
| Oct. | 5.—Session of Graduate School begins. | Thursday. |
| Nov. | 22.—Anniversary Meeting of Alumni. | Wednesday. |
| Nov. Dec. | 30. } 2. } Thanksgiving recess. | |

Dec. 25–Jan. 1, 1894.—Christmas recess.

1894.

| | | |
|---|---|---|
| Jan. | 18.—First College Term Examinations begin. | Thursday. |
| Jan. | 25.—First Corcoran Term Examinations begin | Thursday. |
| Feb. | 1. { Second Term of College and Corcoran School begins. } | Thursday. |
| Mar. | 23–26.—Easter recess. | |
| April | 16. { Examination of Candidates for Degrees in the Columbian College and the Corcoran Scientific School begins. } | Monday. |
| May | 3. { Commencement of Medical and Dental Schools. } | Thursday. |
| May | 15. { Report of Examinations for Degrees in the Graduate School closed. } | Tuesday. |
| May | 21. { Second Term Examinations of College and Corcoran School begin. } | Monday. |
| May | 22.—Law School Examinations for Degrees end. | Tuesday. |
| June | 10.—Baccalaureate Sermon. | Sunday. |
| June | 11.—Exhibition Day. | Monday. |
| June | 11.—Commencement of the Graduate School. | Monday. |
| June | 11.—Closing Exercises of Preparatory School. | Monday. |
| June | 12.—Commencement of Law School. | Tuesday. |
| June | 13. { Commencement of College and Corcoran School. } | Wednesday. |
| June | 18.—Annual Meeting of the Corporation. | Monday. |

## Next Academic Year, 1894-'95.

1894.

| | | |
|---|---|---|
| Sept. | 21, 22. Examination of Candidates for admission to College. | Friday, Saturday. |
| Sept. | 24.—First College Term begins. | Monday. |
| Sept. | 24.—First Term of Preparatory School begins. | Monday. |
| Oct. | 1.—Session of Medical School begins. | Monday. |
| Oct. | 2.—Session of Corcoran School begins. | Tuesday. |
| Oct. | 3.—Session of Law School begins. | Wednesday. |
| Oct. | 4.—Session of Graduate School begins. | Thursday. |
| Nov. 29, Dec. 1. | Thanksgiving recess. | |

Dec. 24–Jan. 1, 1895—Christmas recess.

1895.

| | | |
|---|---|---|
| Jan. | 17.—First College Term Examinations begin. | Thursday. |
| Jan. | 24.—First Corcoran Term Examinations begin. | Thursday. |
| Feb. | 1. Second Term of College and Corcoran School begins. | Friday. |
| Apr. 12–15.—Easter recess. | | |
| April | 16. Examination of Candidates for Degrees in the Columbian College and the Corcoran Scientific School begins. | Tuesday. |
| May | 2. Commencement of Medical and Dental Schools. | Thursday. |
| May | 14. Report of Examinations for Degrees in the Graduate School closed. | Tuesday. |
| May | 20. Second Term Examinations of College and Corcoran School begin. | Monday. |
| May | 21.—Law School Examinations for Degrees end. | Tuesday. |
| June | 9.—Baccalaureate Sermon. | Sunday. |
| June | 10.—Anniversary Meeting of Alumni. | Monday. |
| June | 10.—Exhibition Day. | Monday. |
| June | 10.—Commencement of the Graduate School. | Monday. |
| June | 11.—Commencement of Law School. | Tuesday. |
| June | 12. Commencement of College and Corcoran School. | Wednesday. |
| June | 14.—Closing Exercises of Preparatory School. | Friday. |
| June | 17.—Annual Meeting of the Corporation. | Monday. |

## EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

### Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief

Justice of the United States, and the Attorney General are honorary members of its Board of Trustees. Two Associate Justices of the Supreme Court of the United States, and two Associate Justices of the Supreme Court of the District of Columbia are active members of its Law Faculty. The President of the University is a Regent of the Smithsonian Institution and the Chairman of its Executive Committee. The President of the University is a Director of the National Deaf-Mute College, and the President of that College is a Trustee of the University. The directors of the United States Geological Survey, the Bureau of Ethnology, and the United States National Museum are Trustees of the University. The Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, and the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint, are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The pathology of mental diseases is taught in the Medical School by one of the physicians in charge at the Government Hospital for the Insane, and the President of the University is a member of its Board of Visitors. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the National Geographic Society and the President of the Anthropological Society of Washington are members of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University. The President of the Columbian Engineering Society is the Professor of Civil Engineering in the Corcoran Scientific School and in the Graduate School of the University. The President of the University is the President of the Philological Association, established under the auspices of the Columbian University.

### Other Scientific Facilities in Washington.

Washington is as much the scientific centre as it is the legislative, executive, and judicial centre of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate

of more than 1,100 persons. The Anthropological Society (Dr. Otis T. Mason, President), numbering, according to the last Scientific Directory, 201 active, 36 corresponding, and 24 honorary members, meets fortnightly or oftener, on Tuesday evenings. The Biological Society (Professor C. V. Riley, President), with 152 active and 38 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society (Dr. W. H. Seaman, President), with 102 members, holds meetings on the alternate Thursdays of each month. The Entomological Society (Professor William H. Ashmead, President), with 38 resident and 85 corresponding members, meets on the first Thursday of each month. The National Geographic Society (the Hon. Gardiner G. Hubbard, LL.D., President), with 946 members, meets every Friday. The Philosophical Society (Dr. Robert Fletcher, President), with 167 active and 66 nonresident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society (Professor J. Howard Gore, Chairman) meets on Wednesday, at irregular intervals, in the mathematical lecture-room of the Columbian University. The Society of Philosophical Inquiry (Professor J. Macbride Sterrett, President) meets every Tuesday afternoon during term time in the philosophical lecture-room of the Columbian University. The Columbian Engineering Society (Professor Francis R. Fava, Jr., C. E., President) meets on the first and the third Tuesday of each month in the Engineering Hall of the University. The Philological Association of the Columbian University (Dr. James C. Welling, President) meets at the call of the Secretary in the Latin recitation room of the University. The Geological Society (Dr. C. D. Walcott, President) comprising 114 active members and 23 corresponding members, meets on the second Wednesday of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences (Professor O. C. Marsh, President) meets annually in Washington in April.

During the Christmas holidays the Lecture Halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society, for the purposes of their annual meetings. As many as eighteen national or international societies held their annual meetings in the University building during the year 1891–'92. These meetings are open to the students of the University.

# THE UNIVERSITY CORPORATION.

JAMES C. WELLING, LL. D., *President of the Corporation.*

HONORARY OVERSEERS.

THE PRESIDENT OF THE UNITED STATES.
THE CHIEF JUSTICE OF THE UNITED STATES.
THE ATTORNEY-GENERAL OF THE UNITED STATES.

OVERSEERS.

THE REV. FRANKLIN WILSON, D. D., Baltimore, Md.
THE REV. J. W. M. WILLIAMS, D. D., Baltimore, Md.
HIRAM WOODS, ESQ., Baltimore, Md.
HENRY TAYLOR, ESQ., Baltimore, Md.
EUGENE LEVERING, ESQ., Baltimore, Md.
GEORGE O. MANNING, ESQ., Baltimore, Md.
JAMES POLLARD, ESQ., Baltimore, Md.
THE HON. WILLIAM L. WILSON, LL. D., Charlestown, W. Va.
THE REV. H. L. MOREHOUSE, D. D., New York City.
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THE REV. THOMAS J. MORGAN, D. D., LL. D., New York City.
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TRUSTEES.

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G. BROWN GOODE, LL. D.
OTIS T. MASON, PH. D.
THE REV. SAMUEL H. GREENE, D. D.
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THE REV. CHARLES A. STAKELY, D. D.
THE HON. J. L. M. CURRY, LL. D.
CHARLES W. NEEDHAM, ESQ.
J. J. DARLINGTON, LL. D.
SAMUEL W. WOODWARD, ESQ.
ROBERT H. MARTIN, ESQ.

JOHN T. GIVEN, *Secretary.*
ROBERT H. MARTIN, *Treasurer.*

## Standing Committees of the Corporation for the Academic Year 1893–'94.

*Executive Committee.*

Messrs. GREENE, GALLAUDET, GIVEN, WELLING, and MARTIN.

*Committee on Nominations to Fill Vacancies in the Corporation.*

Messrs. WILLIAMS, STAKELY, and WOODWARD.

*Committee on the Preparatory School.*

Messrs. WILSON, MASON, and WOODWARD.

*Committee on the Columbian College.*

Messrs. STAKELY, GREENE, and DARLINGTON.

*Committee on the Medical and Dental Schools.*

Messrs. NOYES, CURRY, and MARTIN.

*Committee on the Law School.*

Messrs. MATTINGLY, CURRY, and NEEDHAM.

*Committee on the Corcoran Scientific School.*

Messrs. POWELL, HUBBARD, and MASON.

*Committee on the School of Graduate Studies.*

Messrs. GOODE, GALLAUDET, and WELLING.

*Auditing Committee.*

Messrs. GIVEN, WILSON, and NEEDHAM.

*Committee on Increase of University Endowment.*

Messrs. LEVERING, GREENE, NOYES, ELLIS, and HUBBARD.

# ALUMNI ASSOCIATION

OF THE

# COLUMBIAN UNIVERSITY.

## OFFICERS, 1893–'94.

*President:*

MYRON M. PARKER.

*Vice-Presidents:*

W. P. CARR, M. D.

C. A. DAVIS.

*Secretary:*

H. L. HODGKINS.

*Treasurer:*

JOHN B. LARNER.

*Executive Committee:*

MYRON M. PARKER, *Chairman.*

| | |
|---|---|
| C. W. APPLER, D. D. S. | E. B. HAY. |
| F. L. AVERILL. | GEO. W. HAY, D. D. S. |
| E. H. BOOTH. | H. L. HODGKINS. |
| W. P. CARR, M. D. | A. F. A. KING, M. D. |
| C. A. DAVIS. | JOHN B. LARNER. |
| H. E. DAVIS. | A. P. MONTAGUE. |
| W. E. HANDY, M. D. | JESSE H. WILSON. |

The Alumni have recently commenced work on an organized plan for the increase of the University Library.

An illustrated historical Catalogue of the University has recently been published by the Alumni Association, and unbound copies may be purchased from the Secretary for fifty cents each, and bound copies for one dollar each.

# ENDOWMENTS.

The value of the University's property and endowments is estimated at about $1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of $250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said Corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said Corporation by its original name."

## FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them and called the —— Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them as an endowment for the support of (the School of ——), (a Professorship of ——), (a Lectureship in the School of ——), (a Fellowship in the School of ——) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special signification in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors. The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corcoran Scientific School a separate specialty is called a "Department."

# DIRECTORY

OF THE

# COLUMBIAN UNIVERSITY.

ACADEMIC YEAR 1892–'93.

JAMES C. WELLING, *President of the University.*

A. B., Princeton College, 1844, and A. M., 1847; President of St. John's College (Maryland), 1867; LL. D., Columbian University, 1868; Professor of Belles-Lettres, Princeton College, 1870; President of Columbian University, 1871; President of Corcoran Gallery of Art, 1877; Regent of Smithsonian Institution, 1884, and Chairman of its Executive Committee, 1886; Director of the National Deaf-Mute College, 1888; United States Commissioner Columbian Exposition at Madrid, 1892.

1302 Connecticut Avenue.

CLEVELAND ABBE, *Professor of Meteorology.*

A. B., New York City College, 1857; A. M., 1860; Ph. D., 1891; LL. D., University of Michigan, 1889.

2017 I Street NW.

G. N. ACKER, *Demonstrator of Pathological Histology and Clinical Professor of Medicine.*

A. B., Penn College, 1872; A. M., 1875; M. D., Columbian University, 1874; University of Berlin, 1877; Demonstrator of Practical Physiology, 1880; Clinical Professor of Medicine, Columbian University, 1883; Visiting Physician Childrens' Hospital, 1884, and Garfield Hospital, 1892; Lecturer on Physiology, Washington Training School for Nurses, 1884.

913 Sixteenth Street NW.

SAMUEL SHUGART ADAMS, *Clinical Professor of Diseases of Children.*

A. B., West Virginia University, 1875, and A. M., 1878; M. D., University of Georgetown, 1879; Lecturer on Diseases of Children, University of Georgetown, 1879–'84; Professor of Theory of Practice of Medicine, National University, 1884–'92; Attending Physician to the Children's, the Garfield Memorial, and the Foundling Hospitals, and the Washington Home for Incurables; Consulting Physician to the Woman's Hospital; Professor of Clinical Pædiatrics, Columbian University, 1892; Chairman of the Committee of Arrangements of the Pan-American Medical Congress, 1893, and the Congress of American Physicians and Surgeons, 1894; Secretary of the American Pædiatric Society, and of the Medical Society of the District of Columbia.

1632 K Street NW.

CYRUS ADLER, *Professor of Oriental History and Archæology.*

A. B., University of Pennsylvania, 1883, and A. M., 1886; Fellow of Johns Hopkins University, 1885–'87; Ph. D., 1887; Instructor in Semitic Languages, 1887–'90; Associate in Semitic Languages, 1890–'94; Commissioner for the World's Columbian Exposition to the Orient, 1890–'92; Assistant Curator of Oriental Antiquities and Religious Ceremonials, United States National Museum, 1887; Librarian of the Smithsonian Institution, 1892.

943 K Street NW.

LOUIS AMATEIS, *Professor of Architectural Drawing.*

Gold Medalist, Royal Academy of Fine Arts, Turin. 1717 Nineteenth Street.

WOOLSEY ASPINWALL, *Instructor in English.*

1464 Rhode Island Avenue.

FRANK LLOYD AVERILL, *Assistant in Field Engineering.*

C. E., Columbian University, 1891. 1616 Fifteenth Street NW.

FRANK HAGAR BIGELOW, *Professor of Solar Physics.*

A. B., Harvard, 1873; A. M., 1880; Assistant at Cordova; Nautical Almanac Office, 1889; United States Weather Bureau, 1891. 1625 Massachusetts Avenue.

JONAS EMIL BLOMÉN, *Instructor in Physics.*

Ph. C., Athenæum College, Stockholm, Sweden, 1880; Graduate Military Engineering Academy, Stockholm, 1881; Commissioned Lieutenant of Engineers of the R. S. A., 1881; Director of the International Magnetic Survey at Upsala, 1882; Ph. D., Upsala University, 1884.

HENRY CARRINGTON BOLTON, *Non-resident Lecturer on the History of Chemistry.*

A. M., Columbia College, 1862; Ph. D., Göttingen, 1866; Assistant in Analytical Chemistry, School of Mines Columbia College), 1872; Professor of Chemistry, Woman's Medical College, New York, 1875; Professor of Chemistry, Trinity College, Connecticut, 1877; President New York Academy of Sciences, 1893. University Club, New York.

ANDREW COYLE BRADLEY, *Lecturer on Criminal Law and on Criminal Pleading and Practice.*

LL. B., Harvard University, 1867; Associate Justice of the Supreme Court of the District of Columbia, 1889. 2013 Q Street NW.

CLARENCE A. BRANDENBURG, *Instructor in Practical Commercial Law.*

LL. B., Columbian University, 1888, and LL. M., 1889. 2139 N Street NW.

DAVID J. BREWER, *Professor of the Law of Corporations.*

A. B., Yale College, 1856; LL. B., Albany Law School, 1858; A. M., Yale College, 1859; Judge of Kansas District Court, 1865; Justice Supreme Court State of Kansas, 1871-'84; Judge Circuit Court of the United States, Eighth Circuit, 1884-'90; LL. D., Iowa College, 1885; Washburn College, 1888; Associate Justice Supreme Court of the United States, 1890; LL. D., Yale University, 1891. 1412 Massachusetts Avenue NW.

ISAAC W. BREWER, *Prosector of the Chair of Anatomy.*

M. D., Columbian University, 1883.

WILLIAM K. BUTLER, *Professor of Ophthalmology.*

A. M., Columbian University, 1879; M. D., 1882; Surgeon in Charge Lutheran Eye, Ear, and Throat Infirmary, Washington, D. C. 1207 M Street NW.

WILLIAM P. CARR, *Professor of Physiology.*

M. D., Columbian University, 1888. 1103 Thirteenth Street NW.

IMMANUEL M. CASANOWICZ, *Lecturer on Ancient Statistics.*

B. D., Theological School of Basel, Switzerland, 1881; Instructor of Latin and Greek, 1881; Professor of Hebrew and Church History and Housefather, Theological School of Newark, N. J., 1883-'87; Student of Semitic and Classical Philology and sometime Lecturer on Lost Biblical Hebrew at Johns Hopkins University, 1889-92; Ph. D., Johns Hopkins University, 1892; Preparator of the literary work for the Exhibit of Religions at the United States National Museum, 1892. 1019 Tenth Street NW.

GEORGE V. CHANDLER, *Assistant in Mineralogy and Geology.*

Examiner United States Patent Office. 213 C Street SE.

THOMAS MAREAN CHATARD, *Lecturer on Chemical Engineering.*

A. B., Mt. St. Mary's College, Maryland, 1867, and A. M., 1869; S. B., Harvard College (L. S. S.), 1871; Instructor United States Navy Torpedo Station, Newport, R. I., 1870–'72; Instructor University of Pennsylvania, 1872–'74; Ph. D., University of Heidelberg, 1876; Chemist United States Geological Survey, 1883–'92. 1758 K Street NW.

JOHN J. CHICKERING, *Associate Principal, Preparatory School.*

A. M., Amherst, 1879; LL. M., Columbian University, 1890.
Kendall Green, D. C.

ALEXANDER SMYTH CHRISTIE, *Professor of Mathematical Physics.*

Chief of Tidal Division, United States Coast and Geodetic Survey, 1885–'93; LL. B., Columbian University, 1885; LL. M., National University Law School, 1888. Mankato, Minn.

JAMES R. CHURCH, *Prosector of the Chair of Anatomy.*

M. D., Columbian University, 1893.

FRANK WIGGLESWORTH CLARKE, *Professor of Mineral Chemistry.*

B. S., Harvard, 1867; Professor of Chemistry and Physics, University of Cincinnati, 1874–'83; Chief Chemist United States Geological Survey, 1883; Honorary Curator of Minerals, United States National Museum, 1883.
1612 Riggs Place NW.

WILLIAM L. CLARK, *Assistant Demonstrator.*

D. D. S., Columbian University, 1893. 1224 New York Avenue NW.

WALTER S. COX, *Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.*

A. B., Georgetown College, 1843; A. M., 1845; LL. B., Harvard University Law School, 1847; LL. D., Columbian University, 1875; Associate Justice Supreme Court of the District of Columbia, 1879; Trustee of Corcoran Gallery of Art, 1888. 1636 I Street NW.

ANDREW FULLER CRAVEN, *Assistant Professor of Economics.*

LL. B., Chicago University, 1869; A. B., Harvard University, 1889; Ph. D., Johns Hopkins University, 1893. 1608 Seventeenth Street NW.

GEORGE EDWARD CURTIS, *Assistant in Meteorology.*

B. A., Yale University, 1882; M. A., 1887. 1237 M Street NW.

HENRY E. DAVIS, *Lecturer on the History of Law.*

A. B., Princeton College, 1876; A. M., 1879; LL. B., Columbian University, 1878; LL. M., 1879; Assistant Attorney, District of Columbia, 1885–'89; Associate Professor of Practice and Judge of Moot Court, 1888–'93.
1825 Jefferson Place NW.

R. B. DONALDSON, *Clinical Operator.*

D. D. S., Maryland Dental College, 1876; Honorary D. D. S., Baltimore College Dental Surgery, 1878. 1309 F Street NW.

WILLIAMS DONNALLY, D. D. S., *Clinical Operator.*

D. D. S., University of Michigan, 1880; Secretary Board of Dental Examiners for the District of Columbia 1892–'93; President, 1893.
1022 Fourteenth Street NW.

GEORGE HENRY EMMOTT, *Lecturer on the Civil Law.*

A. B. and LL. B., University of Cambridge (Eng.), 1879; A. M., 1882, and LL. M., 1892; sometime Associate and Lecturer on Roman and English Law in Victoria University (Eng.); Lecturer in English Law to the Birmingham (Eng.) Law Society, 1882–'85; now Professor of Roman Law and Comparative Jurisprudence in the Johns Hopkins University.
Johns Hopkins University, Baltimore, Md.

EDWARD FARQUHAR, *Instructor in English.*

Assistant in United States Patent Office Library, 1865. 2008 F Street NW.

FRANCIS RENATUS FAVA, *Professor of Civil Engineering.*

C. E., 1882, Polyt., Zürich. 917 Sixteenth Street NW.

PETER FIREMAN, *Assistant in Chemistry.*

Graduate Classical Gymnasium at Charkov (Russia), 1881; Ph. D., Berne University (Switzerland), 1893. 218 Second Street NE.

WORTHINGTON C. FORD, *Lecturer on Statistics.*

Chief of United States Bureau of Statistics, 1893. Metropolitan Club.

EDWIN H. FOWLER, *Assistant in Topographic Drawing.*

B. S., Dartmouth, 1878. 1126 East Capitol Street.

FELIX FREYHOLD, *Assistant in Iron and Steel Construction.*

C. E., Lehigh, 1885. 236 First Street SE.

EDGAR FRISBY, *Professor of Astronomy.*

A. B., University of Toronto, 1863, and M. A., 1864; Acting Professor of Mathematics, Northwestern University, 1867; Assistant, United States Naval Observatory, 1858; Professor of Mathematics, United States Navy, 1878.
1607 Thirty-first Street.

THEODORE NICHOLAS GILL, *Professor of Zoölogy.*

A. M., Columbian University, 1865; M. D., 1866; Ph. D., 1870.
National Museum.

WILLIAM S. GOODALL, *Assistant Demonstrator of Anatomy.*

M. D.

JAMES HOWARD GORE, *Professor of Mathematics and Geodesy.*

B. S., Columbian University, 1879; Ph. D., 1888. 1521 New Hampshire Avenue.

WILLIAM M. GRAY, *Demonstrator of Normal Histology.*

M. D., University of Pennsylvania, 1882; Microscopist of the Army Medical Museum; Director of the Lionel Laboratory. 2133 P Street NW.

ADOLPHUS WASHINGTON GREELY, *Professor of Geography.*

Brigadier General and Chief Signal Officer, United States Army; Queen's Gold Medal, Royal Geographical Society, 1885; Gold Medal, Paris Geographical Society, 1885; Chief of Signal Service Corps, 1887. 1914 G Street NW.

JONATHAN R. HAGAN, *Demonstrator in Charge of Infirmary.*

D. D. S., Columbian University, 1890. 1224 New York Avenue NW.

W. S. HARBAN, *Clinical Operator.*

D. D. S., Baltimore College of Dental Surgery, 1877.
1342 New York Avenue NW.

JOHN M. HARLAN, *Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts*

A. B., Centre College (Kentucky), 1850; LL. B., Transylvania University, 1853; Attorney General of Kentucky, 1863; Associate Justice of the United States Supreme Court, 1877. Cor. Fourteenth and Euclid Streets.

WILLIAM T. HARRIS, *Professor of Philosophy.*

Honorary A. M., Yale, 1869; LL. D., University of Missouri, 1870; Honorary "Officer of the Academy," 1880, and Honorary "Officer of Public Instruction," 1889, by decree of French Government; United States Commissioner of Education, 1889; Editor of the Journal of Speculative Philosophy; Ph. D., Brown University, 1893. 914 Twenty-third Street NW.

GEORGE BYRD HARRISON, *Professor of Pædiatrics.*

M. D., University of Virginia, 1879. 605 Fourteenth Street NW.

EDWIN B. HAY, *Instructor in Penmanship and Book-keeping.*

B. S., Columbian University, 1873; LL. B., 1874. 1512 Corcoran Street NW.

WILLIAM P. HAY, *Assistant in Zoölogy.*

B. S., Butler University, 1891; Assistant in Biology, Butler University, 1891–'92; M. S., Butler University, 1892; Instructor in Zoölogy, Central High School (D. C.), 1892. Central High School.

EVERETT HAYDEN, *Assistant Professor of Geography.*

Graduate of the Boston Public Latin School, 1875, and the United States Naval Academy, 1879; Assistant Geologist, United States Geological Survey, 1886–'87; Marine Meteorologist, United States Naval Hydrographic Office, 1887–'93; Ensign, United States Navy (retired). 1802 Sixteenth Street NW.

H. G. HODGKINS, *Registrar and Librarian.*

Proof-reader, Nautical Almanac Office, 1887; Instructor in Mathematics, Columbian University, 1889–'90; A. B., 1890; Instructor in Mathematics, 1891–'92. 3002 Q Street NW.

HOWARD LINCOLN HODGKINS, *Professor of Mathematics and Physics.*

A. M., Columbian University, 1883; Ph. D., 1892. 1830 T Street NW.

DEANE C. HOWARD, *Clinical Assistant.*

M. D., Columbian University, 1893.

L. C. F. HUGO, *Clinical Operator.*

D. D. S., Baltimore College Dental Surgery, 1880. 808 Seventeenth Street NW.

A. J. HUNTINGTON, *Professor of Greek.*

A. B., Columbian College, 1843; A. M., 1846; D. D., Brown University, 1868. 1010 N Street NW.

E. HILTON JACKSON, *Assistant in Latin.*

A. B., Columbian University, 1891; LL. B., 1892; LL. M., 1893. 1321 Q Street.

H. L. E. JOHNSON, *Professor of Gynecology.*

M. D., Columbian University, 1882. 1400 L Street NW.

JOHN SCOTT JOHNSON, *Assistant in Applied Mathematics.*

B. S., Columbian University, 1893. 1460 Corcoran Street.

WILLIAM G. JOHNSON, *Professor of Common Law Practice, of Legal Catechetics, and Judge of Moot Court.*

LL. B., Columbian University, 1883; LL. M., 1884. 1400 L Street NW.

WILLIAM W. JOHNSTON, *Professor of Theory and Practice of Medicine.*

M. D., University of Pennsylvania, 1865; Consulting Physician to Garfield Memorial Hospital and President of the Medical Staff; Consulting Physician to the Children's and Emergency Hospitals; ex-President of the Medical Society of the District of Columbia and of the Washington Obstetrical and Gynecological Society; Member of the Association of American Physicians and Treasurer from 1886–'94. 1603 K Street NW.

A. F. A. KING, *Professor of Obstetrics and Gynecology.*

M. D., Columbian University, 18 1; M. D., University of Pennsylvania, 1865; Honorary A. M., University of Vermont, 1884; Professor of Obstetrics, Columbian University, 1871; Professor of Obstetrics, University of Vermont, 1872; Dean of Medical and Dental Faculties, Columbian University, 1879; Consulting Physician to the Woman's Dispensary, 1888; Children's Hospital, 1890; Obstetrician to the Columbia Hospital, 1892. 1315 Massachusetts Avenue NW.

HARRY KING, *Professor of Drawing.*

LL B., Columbian University, 1870; Chief Draftsman Tenth Census, 1881; President Special Board of Examiners for Drawing, United States Civil Service Commission, 1883; Chief Draftsman, United States Geological Survey, 1883, and United States General Land Office, 1893; Member of United States Board on Geographic Names, 1893. 1335 Q Street NW.

FRANK HALL KNOWLTON, *Professor of Botany.*

B. S., Middlebury College, 1884; M. S., 1887. United States National Museum.

FRANK LEECH, *Clinical Assistant.*

M. D., Columbian University, 1891. Garfield Hospital.

J. S. LEMON, *Lecturer on Psycho-Physics.*

A. B., Wesleyan University, 1864; A. M., 1867; Principal of Brownville High School, Professor of Physics, Marion Institute, Principal of Almond Collegiate Institute, Principal of Macedon Academy, all in New York; since 1880, Episcopal Rector and Editor of the Religious Department of the *National Tribune*, Washington, D. C.; Clark University, 1891–'94.
*National Tribune* Office.

EXUM PERCY LEWIS, *Assistant Junior Professor of Physics.*

B. S., Columbian University, 1888; Assistant in Physics, Johns Hopkins University, 1891. 1507 Vermont Avenue NW.

J. HALL LEWIS, *Professor of Dental Prosthetics.*

D. D. S., Baltimore College of Dentistry, 1879. 1309 F Street NW.

NATHAN SMITH LINCOLN, *Emeritus Professor of Surgery.*

A. B., Dartmouth College, 1850; M. D., University of Maryland, 1852; A. M., Dartmouth College, 1853; Professor of Chemistry and Natural History, Columbian University, 1857–'60; Professor Theory and Practice of Medicine, 1859–'60; Assistant Surgeon, District of Columbia Volunteers, 1861; Surgeon-in-charge Quartermaster's Hospital, United States Army, 1861–'66; Professor of Anatomy and Physiology, Columbian University, 1861–'62; Professor of Surgery, 1862–'72; Member of Board of Visitors to West Point Military Academy, 1889; LL. D., Dartmouth College, 1893. 1514 H Street NW.

LEE DAVIS LODGE, *Professor of French and Philosophy.*

A. M., Columbian University, 1885; Ph. D., 1892. 1728 Eighteenth Street NW.

THOMAS E. McARDLE, *Professor of Minor Surgery.*

A. B., St. Mary's University (Baltimore), 1874; A. M., 1879; M. D., University of Georgetown, 1879; Lecturer on Genito-Urinary Diseases, Georgetown University; Professor of Surgery, National University; Secretary of the Medical Society of the District of Columbia; Assistant Editor of Walsh's Retrospect, 1880. 821 Sixteenth Street NW.

ROBERT H. MARTIN, *Secretary and Treasurer.*

1608 Seventeenth Street NW.

OTIS TUFTON MASON, *Lecturer on Anthropology.*

A. B., Columbian University, 1861; A. M., 1862; Ph. D., 1870; Principal of Preparatory School, 1861–'84; Curator of the Department of Ethnology, United States National Museum, 1884; Member of the Anthropological Institute of Great Britain and Ireland; of the Société Royale des Antiquaires du Nord; of the Société d'Anthropologie de Paris; of the Societa Italiana d'Anthropologia, Firenze; Officier d'Instruction Publique, France, &c.
1777 Massachusetts Avenue NW.

WILLIAM F. MATTINGLY, *Lecturer on Practical Commercial Law.*

Ph. B., Columbian University, 1857; A. M., 1861. 1616 H Street NW.

WILLIAM A. MAURY, *Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.*

LL. B., Harvard, 1853; LL. D., Columbian University, 1880; Assistant Attorney General of the United States, 1882–'93. 1767 Massachusetts Avenue NW.

GEORGE P. MERRILL, *Professor of Geology and Mineralogy.*

B. S., State University of Maine, 1879; Assistant in Chemistry, Wesleyan University, 1880; Assistant, United States National Museum, 1880; M. S., State University of Maine, 1882; Curator Department of Geology, United States National Museum, 1886; Ph. D., State University of Maine, 1889; Lecturer on Economic Geology, Maryland Agricultural College, 1890–'92. Cosmos Club.

EMIL H. MEYER, *Assistant in Free-hand Drawing.*

Graduate Maryland Institute, School of Art and Design (Peabody Prize), 1881; Instructor of Free-hand Drawing, 1882; awarded two medals, Royal Academy of Fine Arts (Munich), 1883–'88; awarded free scholarship under Professor Franz von Loefftz, 1891; Graduate Royal Academy of Fine Arts (Munich) (Honorable Mention), 1892; Professor of Portrait and Men's Life Classes, Art Students' League (D. C.), 1893. 1101 New Hampshire Avenue NW.

JOSEPH S. MILLS, *Assistant in Qualitative Analysis.*

A. B., Western Maryland College, 1890; Tutor of Latin, 1890; Assistant in Chemistry, Washington High School, 1891–'92; Instructor in Chemistry, 1893; A. M., Western Maryland College, 1893. 715 M Street NW.

ANDREW PHILIP MONTAGUE, *Professor of Latin and Principal of the Preparatory School.*

A. M., Columbian University, 1879; Ph. D., 1888. 1514 Corcoran Street.

VERANUS A. MOORE, *Assistant Demonstrator of Pathological Histology.*

B. S., Cornell University, 1887; Assistant Demonstrator of Pathological Histology, 1890; M. D., Columbian University, 1890; First Assistant, Division of Animal Pathology, Bureau of Animal Industry, Department of Agriculture.
1403 Park Street.

EDWARD A. MUIR, *Instructor in Machine Drawing.*

Graduate of Franklin Institute in Mechanical Drawing, 1887.
512 Third Street NW.

CHARLES EDWARD MUNROE, *Professor of Chemistry, Dean of the Graduate and Corcoran Scientific Schools.*

S. B., Harvard University, 1871; Assistant in Chemistry, Harvard University, 1871–'74; Professor of Chemistry, United States Naval Academy, 1874–'86; Chemist to Torpedo Corps, United States Navy, 1886–'92.
1729 Riggs Place NW.

H. B. NOBLE, SR., *Clinical Operator.*

D. D. S., Baltimore College of Dental Surgeons, 1857.
1324 New York Avenue NW.

A. CLARK PATTERSON, *Professor of Mental Diseases.*

M. D., Columbian University, 1879. Government Hospital for the Insane.

WILLIAM F. R. PHILLIPS, *Prosector of the Chair of Anatomy.*

M. D., Columbian University, 1888; Lecturer on Hygiene, 1892.
933 M Street NW.

JOSIAH PIERCE, JR., *Professor of Drawing.*

Associate King's College (London), 1879; A. B. (Mathematical Honors), Emmanuel College (Cambridge), 1882; A. M., Cambridge, 1886; Associate Member Institution Civil Engineers (London), 1886; Telford Medalist, 1888; Principal Assistant Engineer (City of Baltimore) Topographical Survey, 1893.
1325 Massachusetts Avenue NW.

D. WEBSTER PRENTISS, *Professor of Materia Medica and Therapeutics.*

Ph. B., Columbian University, 1861; Assistant Surgeon, Quartermaster's Hospital (D. C.), 1861–'64; A. M., Columbian University, 1864; M. D., University of Pennsylvania, 1864; Acting Assistant Surgeon, United States Army, 1864–'65; Physician-in-charge of eye and ear service, Columbian Dispensary, 1874–'76; Lecturer on Dietetics and Administration of Medicines, Nurses' Training School, and Dean of the Faculty, 1878–'83; Trustee, 1880–'84; President of the Board, 1884; Visiting Physician to Providence Hospital, 1882; Consulting Physician, Children's Hospital and Central Dispensary; Commissioner of Pharmacy of the District of Columbia; President of the Board, 1888.
1101 Fourteenth Street NW.

HENRY ROGERS PYNE, *Assistant in Ancient Languages.*

A. B., Columbian University, 1893. 1702 S Street NW.

MARATHON MONTAGUE RAMSEY, *Assistant in Spanish and Italian.*

Translator, Army Medical Library, 1889; Official Translator, International American Conference, 1889; Special Clerk for the Collection and Classification of Military Information from Abroad, 1890. 2120 H Street NW.

HERBERT LOUIS RICE, *Assistant in Astronomy.*

Assistant, United States Nautical Almanac; B. S., Columbian University, 1893.
Nautical Almanac Office.

THEODORE W. RICHARDS, *Assistant Demonstrator of Anatomy.*

M. D.

CHARLES W. RICHARDSON, *Professor of Laryngology and Otology.*

M. D., Columbian University, 1884; University of Pennsylvania, 1884.
1102 L Street NW.

POWHATAN W. ROBERTSON, *Assistant in Finance.*

A. M., Eastman National Business College, 1881. 1416 Fifteenth Street NW.

ALVA SIGEL ROUSH, *Assistant Demonstrator.*

A. M., Ohio University, 1884; M. S., Medical College of Ohio, 1887; M. D., St. Bartholomew's (London), 1889; D. D. S., Columbian University, 1892.
716 Eleventh Street NW.

STERLING RUFFIN, *Professor of Medical Jurisprudence.*

M. D., Columbian University, 1890. Treasury Department.

HERMANN SCHOENFELD, *Professor of German.*

Ph. D., Leipsic, 1887. 1108 H Street NE.

EMIL A. DE SCHWEINITZ, *Professor of Chemistry and Toxicology.*

A. B., University of North Carolina, 1882, and Ph. D., 1884; Ph. D., University of Göttingen, 1886; Professor of Chemistry, Lexington, Ky., 1888; Chemist, Biochemic Laboratory, Department of Agriculture, 1890. 1732 K Street NW.

D. K. SHUTE, *Professor of Anatomy.*

A. B., Columbian University, 1879; M. D., 1883. 1321 Q Street NW.

SAMUEL M. SHUTE, *Professor of the English Language and Literature.*

A. B., University of Pennsylvania, 1844; A. M., 1847; D. D., Mercer University (Georgia), 1869. 1321 Q Street NW.

WILLIAM EDGAR SIMONDS, *Professor of the Law of Patents.*

LL. B., Yale University, 1865; Lecturer on Patent Law, Yale Law School, 1884; Speaker of Connecticut House of Representatives, 1885; Trustee, Storr's Agricultural College, 1886; Member Fifty-first Congress, 1889–'91; A. M. (Honorary), Yale University, 1890; Legion of Honor (France), 1891; United States Commissioner of Patents, 1891–'93. Potter Building, New York City.

THEOBALD SMITH, *Professor of Bacteriology and Hygiene.*

Ph. B., Cornell University, 1881; M. D., Albany Medical College, 1883; Chief of the Division of Animal Pathology, Bureau of Animal Industry, Department of Agriculture. 1804 Columbia Road.

J. CURTIS SMITHE, *Clinical Operator.*

D. D. S., Maryland Dental College, 1870; D. D. S., Baltimore College of Dental Surgery, 1872; Clinical Lecturer, Baltimore College of Dental Surgery. 1315 New York Avenue NW.

ANTONIO M. SOTELDO, *Professor of Spanish.*

A. B., Guanare National College (Venezuela), 1838; LL. B., University of Merida (Venezuela), 1845, and LL. D., 1845; Secretary, Tribunal of Barinas, 1846; Judge, Tribunal of Barinas, 1847; Representative, National Congress, 1847, and Senator, 1858; Commissioner of the Government of Venezuela to the Dutch Island of Curaçao, 1863; Rector, National College of La Paz (Caracas), 1876; Diplomatic Minister of Venezuela to the Government of the United States, 1883; Solicitor for the Department of Foreign Affairs, 1887; Venezuelan Commissioner on a Special Mission to the United States, 1888; Delegate of the Government of Ecuador to the Auxiliary Congresses of the Columbian Exposition, 1893; Venezuelan Judge of Awards for the Columbian Exposition, 1893.

J. MACBRIDE STERRETT, *Professor of Philosophy.*

A. B., University of Rochester, 1867; B. D., Cambridge Episcopal Seminary, 1872; D. D., University of Rochester, 1886; Professor of Ethics and Apologetics in the Seabury Divinity School, 1882–'92. Pierce Mill Road.

HENRY C. THOMPSON, *Professor of Operative Dentistry and President of the Dental Faculty.*

D. D. S., Philadelphia College Dental Surgery, 1891. 1113 Pennsylvania Avenue NW.

J. FORD THOMPSON, *Professor of Surgery.*

M. D., University of Maryland; Acting Assistant Surgeon, United States Army, 1861–'65. 804 Seventeenth Street NW.

ERNEST LAWTON THURSTON, *Assistant in Engineering and Drawing.*
C. E., Columbian University, 1893. 1505 R Street NW.

EDMUND LEE TOMPKINS, *Clinical Professor of Diseases of the Nervous System.*
M. D., University of Virginia, 1885; House Surgeon to the New York Post-Graduate Hospital, 1886; Assistant Physician, Dr. William A. Hammond's Hospital for Nervous Diseases, 1888; Attending Physician to the Department of Nervous Diseases, Central Dispensary and Emergency Hospital, 1893.
826 Fourteenth Street NW.

JOHN VAN RENSSELAER, *Assistant Demonstrator of Anatomy.*
A. B., Hobart College, 1882; M. D., Columbian University, 1889.
2 Thomas Circle.

JOHN R. WELLINGTON, *Demonstrator of Minor Surgery and Assistant Demonstrator of Anatomy.*
A. B., Colby University, 1886; A. M., 1891; M. D., Columbian University, 1891.
1459 Fourteenth Street NW.

CABELL WHITEHEAD, *Assistant in Assaying.*
B. M., Lehigh University, 1885; Assayer, United States Assay Office (Boise City, Idaho), 1886; Assayer, Bureau of the Mint, 1889.
1114 New Hampshire Avenue NW.

HARVEY WASHINGTON WILEY, *Professor of Agricultural Chemistry.*
A. B., Hanover College, 1867; A. M., 1870; Ph. D., 1876; S. B., Harvard, 1873; M. D., Indiana Medical College, 1871. 1314 Tenth Street NW.

WILLIAM CRAWFORD WINLOCK, *Professor of Astronomy.*
A. B., Harvard, 1880; Assistant Astronomer, United States Naval Observatory, 1880; Curator of Exchanges, Smithsonian Institution, 1889; Assistant in Charge of Office, 1891. 2005 O Street NW.

AUGUSTUS S. WORTHINGTON, *Lecturer on Legal Bibliography and the Use of Authorities in Court.*
LL. B., Columbian University, 1868; United States District Attorney, District of Columbia, 1884–'88. 2015 Massachusetts Avenue NW.

H. C. YARROW, *Professor of Dermatology.*
M. D., University of Pennsylvania, 1861; Honorary Curator, Department of Reptiles, National Museum. 814 Seventeenth Street NW.

GLENDIE B. YOUNG, *Assistant Demonstrator of Anatomy.*
M. D., Columbian University, 1888. 730 Eleventh Street NW.

**Janitors.**

FRANK BECKET, *Law Building.*
DANIEL CONNOR, *Medical School.*
RIXON T. HARRIS, *University Building.*
WALTER HONESTY, *Preparatory School.*
WALTER L. LEWIS, *University Building.*

# THE LAW SCHOOL.

**The Faculty.**

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of Public and Private International Law.

THE HON. JOHN M. HARLAN, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts.

THE HON. WALTER S. COX, LL.D.,
(Associate Justice of the Supreme Court of the District of Columbia,)
Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.

THE HON. WILLIAM A. MAURY, LL.D.,
(Sometime Assistant Attorney General of the United States,)
Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.

THE HON. DAVID J. BREWER, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Law of Corporations.

PROF. G. H. EMMOTT, A.M., LL.M.,
(of the Johns Hopkins University,)
Lecturer on the Civil Law.

HENRY E. DAVIS, A.M., LL.M.,
(Sometime Assistant Attorney of the District of Columbia,)
Lecturer on the History of Law.

THE HON. AUGUSTUS S. WORTHINGTON, LL.B.,
(Sometime District Attorney of the United States,)
Lecturer on Legal Bibliography and the Use of Authorities in Court.

WILLIAM F. MATTINGLY, Esq.,
(of the Washington Bar,)
Lecturer on Practical Commercial Law.

THE HON. WILLIAM EDGAR SIMONDS, A.M., LL.B.,
(Sometime United States Commissioner of Patents,)
Professor of the Law of Patents.

THE HON. ANDREW C. BRADLEY,
(Associate Justice of the Supreme Court of the District of Columbia,)
Lecturer on Criminal Law and on Criminal Pleading and Practice.

WILLIAM G. JOHNSON, LL.M.,
(of the Washington Bar,)
Professor of Legal Catechetics and Judge of Moot Court.

The Law School of the Columbian University is held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

**Admission.**

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not spent one year either at this or some other law school or performed a corresponding amount of study under the direction of a member of the bar.

**Matriculation.**

No fee is charged for Matriculation, but the fee for at least one month's tuition must be paid in advance on registration. The register will be open for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

**Sessions.**

The entire course of study in the undergraduate department embraces two years. The annual session begins on the first Wednesday of October and ends on the Tuesday next before the second Wednesday in June. The exercises of the School begin daily at 6 o'clock p. m., an arrangement which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students

the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

### Course of Instruction.

The School has three classes, a Junior and a Senior in the undergraduate department, and a graduate Class in Practice.

### Junior Class.

PROFESSOR COX,

(Associate Justice of the Supreme Court of the District of Columbia.)

The instructor of the Junior Class, aiming to secure for his pupils as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries, Parsons on Contracts, and Byles on Bills, as text books, to be carefully read and studied. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teaching of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study of law; and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

### On Domestic Relations, on Commercial Paper, and on Torts.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

Mr. Justice HARLAN gives a course of lectures on each of these subjects. While he follows the general order and arrangement in respect to them pursued respectively in Schouler's Domestic Relations, Byles on Bills, and Pollock on Torts, there is no mere study of these as text books. Mr. Justice HARLAN'S aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of

all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of foundation principles. This course extends through the whole scholastic year.

### The Senior Class.

PROFESSOR MAURY,

(Sometime Assistant Attorney General of the United States.)

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleadings and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleading and Practice in Equity being the text books used under these heads. The closing part of the course is occupied with the law of Partnership considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies, Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

### Legal Catechetics.

PROFESSOR WILLIAM G. JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on four days of each week) conducted by Professor WILLIAM G. JOHNSON, a graduate of the School who is familiar with its methods of

instruction. His "quizzes" are additional and supplemental to those of the Professors.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text books and the lectures, the student is called to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *viva voce* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

### Constitutional Law.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

A course of Lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN, of the Supreme Court of the United States.

In this course the student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examination of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of the instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These Lectures are delivered every Saturday and are open to both the graduate and undergraduate classes of the School.

### Law of Corporations.

PROFESSOR BREWER,

(Associate Justice of the Supreme Court of the United States.)

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So much of the business, and the great business, of the day is done by corporations that they furnish a large amount of the litigation; and, because of such importance, special attention is given to it in this School. An extensive course of lectures is delivered by Mr. Justice

BREWER, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of today, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

### International Law.

PRESIDENT WELLING.

After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its historical growth, the instructor seeks to give a brief exposition of the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications, alike to the conduct of nations and the conduct of individuals.

These Lectures are open to both the graduate and the undergraduate classes of the School.

### The Civil Law.

PROFESSOR EMMOTT.

Professor GEORGE H. EMMOTT, A.M., LL.M., of the Johns Hopkins University, a graduate of the University of Cambridge, England, delivers every year a course of Lectures on the Civil Law, in which the principles of the Roman jurisprudence are expounded under given heads, as well for their intrinsic historical interest as for the light they shed on English Common Law.

### Law of Patents.

PROFESSOR SIMONDS.

The HON. WILLIAM E. SIMONDS, formerly U. S. Commissioner of Patents, delivers a course of Lectures on the Law of Patents, in which, after tracing the origin and growth of our Federal Patent system, he discusses, as far as practicable, the nature of Patent Property and the general nature of Patent Practice considered in its special modes of procedure.

### Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This Society holds public exercises under the auspices of the University at

the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

### Library and Reading-room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, books of reference, etc., is open for purposes of study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. Attached to the Library is a reading-room supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

The Library of the Department of Justice, comprising over 22,000 volumes, is open to law students for reference or study and is situated within a two-minutes' walk of the University.

### Special Facilities.

Besides this Law Library of the Department of Justice, the Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurisprudence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

### Examination and Graduation.

All candidates for graduation are required to pass a general examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who, having passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

The time spent in the Law School of the University is counted as part of the period of study required for admission to the bar of the Supreme Court of the District of Columbia.

### Prizes.

A prize of $100, called "The Parker Prize," in honor of its donor, MYRON M. PARKER, Esq., is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of $50, called "The Britton Prize," in honor of its founder, ALEXANDER T. BRITTON, Esq., is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of $40, one of $30, and one of $20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior Class as shall compete for them and shall pass a successful examination for the degree of Bachelor of Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

### Prize Men in 1892-'3.

Parker Prize, WILLIAM H. KELLER, of Pennsylvania.

Britton Prize, { RICHARD NIXON, of Louisiana. / ROBERT E. WOODS, of Kentucky.

First Essay Prize, WILLIAM H. KELLER, of Pennsylvania.

Second Essay Prize, J. WALTER BARBER, of Indiana.

Third Essay Prize, JOHN A. HIGLEY, of New York.

First Debater's Prize, WALTER W. DAVIS, of Kansas.

Second Debater's Prize, PAUL TRAPIER GADSDEN, of South Carolina.

### Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom they and the Faculty may have selected for that purpose.

### Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* for a single year or *one hundred and fifty dollars* for two scholastic years, payable in advance, half yearly, or in monthly installments, at the option of students. Students who devote three years or more to the preparation for graduation may have this privilege by the payment of *two hundred dollars* for the entire course. If a student shall

for any cause intermit the studies of either his first or his second year at any point before graduation, or if, at the close of his second year, he shall fail, for any cause, to be graduated, the payments he may have made during either or both of these years will not work exemption from the regular monthly dues of any subsequent year on which he may attend the School, but it shall always be open to him to profit by the benefits of the three years' rule. A charge of *two dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin Board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

## GRADUATE COURSE IN PRACTICE.

A Graduate course of instruction in Common Law Practice and in Equity Pleadings and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors WILLIAM A. MAURY and WILLIAM G. JOHNSON, as a supplement to the undergraduate course of the Law School. The course leads to the degree of Master of Laws.

In the Common Law Branch the students use, under the direction of Professor JOHNSON, a work on Practice prepared by Professor Cox, after which they are exercised in the conduct and trial of causes, and thus taught to apply their theoretical learning in pleadings, practice, and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's Law of *Nisi Prius*. During more than half the term the exercises are those of a *Nisi Prius* Moot Court, presided over by Professor JOHNSON.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleadings and in the mode of conducting an equity case. The text book employed will be Mitford and Tyler's Equity Pleading and Practice.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the Courts of the United States.

Candidates for admission to this Graduate course are required to furnish evidence that they have been diligent and successful students of law for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission to the course. At the end of the course all such students who shall sustain a satisfactory

examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied; but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of nine months, is *twenty-five dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

### Criminal Law and Procedure.

The Hon. ANDREW C. BRADLEY, Associate Justice of the Supreme Court of the District of Columbia, delivers a series of Lectures on Criminal Law and Criminal Procedure. These lectures will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, and will treat particularly of other principles and of offences which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The Lectures upon Criminal Procedure will treat of pleading and practice in criminal cases, and in discussing the procedure at the trial of criminal cases the difference between criminal and civil practice in regard to the rules of evidence will be pointed out.

The course is open to all the classes of the School.

### On Law Books and How to Use Them.

The Hon. AUGUSTUS S. WORTHINGTON, LL.B., a graduate of the Columbian University Law School and formerly United States District Attorney for the District of Columbia, delivers a short course of lectures on English and American text books and reports.

These lectures treat of the organization and relation to each other of the English courts and of the different courts of the United States, State and Federal, as bearing upon the comparative value of their reported opinions considered as precedents, and contain practical suggestions concerning the use of authorities in court and the manner in which the decisions upon a given point can be most readily found.

The course is open to all the classes of the School.

### Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to all the classes of the School.

### The History of Law.

Professor HENRY E. DAVIS, A. M., LL. M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and the United States.

The course is open to all the classes of the School.

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## PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting of June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

At the same time the President of the University was instructed to visit the leading universities of Europe in which jurisprudence is taught according to the comparative method, in order to collect available information under this head for the use of the Board. The organization of the new School has been arrested for the want of adequate endowment, but a beginning in that direction will, it is hoped, be made during the next scholastic year.

In this new School it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions (after the manner of Freeman in his "Comparative Politics") and along the line of legal in-

stitutes (after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal jurisprudence, of International Law, of Law Reform and of Codification.

## STUDENTS OF LAW.

### Graduate Class in Practice.

| Name. | Residence. |
|---|---|
| A. A. Adams,<br>LL.B., Georgetown University, 1889.<br>LL.M., Georgetown University, 1890. | Tennessee. |
| Perry Allen, | Massachusetts. |
| J. Walter Barber,<br>LL.B., Columbian University, 1893. | Indiana. |
| Walter A. Bethel,<br>Graduate U. S. Military Academy, 1889.<br>B. L., Atlanta Law School, 1892. | Ohio. |
| J. C. Bowen,<br>LL.B., Columbian University, 1893. | Michigan. |
| James W. Byler,<br>LL.B., Columbian University, 1893. | Missouri. |
| U. Schuyler Catlett,<br>LL.B., Columbian University, 1893. | Tennessee. |
| A. V. Cushman,<br>LL.B., Columbian University, 1893. | Massachusetts. |
| George F. Daggett,<br>LL.B., Columbian University, 1893. | Maine. |
| Frank E. Dennett,<br>A. B., Bowdoin College, 1890.<br>LL.B., Columbian University, 1893. | Maine. |
| Rossa T. Downing,<br>LL.B., Georgetown University, 1889.<br>LL.M., Georgetown University, 1890. | District of Columbia. |
| George W. Drew,<br>LL.B., Columbian University, 1893. | District of Columbia. |

| Name. | Residence. |
|---|---|
| W. C. Eldridge,<br>LL.B., National University.<br>LL.M., National University. | New York. |
| J. William Ellis,<br>Ph. B., Cornell, 1890.<br>LL.B., Columbian University, 1893. | New York. |
| F. De Courcy Faust,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| James A. Finch,<br>LL.B., Columbian University, 1893. | New York. |
| Albert F. Flint,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Charles L. Frailey,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1893. | Massachusetts. |
| Paul Trapier Gadsden,<br>A. M., University of the South, 1891.<br>LL.B, Columbian University, 1893. | South Carolina. |
| W. H. Gallinger,<br>LL.B., Georgetown University, 1893. | New Hampshire. |
| Horace D. Goodale,<br>LL.B., Columbian University, 1893. | New York. |
| Milton Le Roy Gough,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| William M. Hardcastle,<br>LL.B., Columbian University, 1892. | Maryland. |
| William E. Harvey,<br>LL.B., Columbian University, 1893. | Missouri. |
| Henry Hawxhurst,<br>LL.B., Columbian University, 1892. | Virginia. |
| John B. Henderson, Jr.,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| W. B. Hoggatt,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Charles E. Howe,<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| Kepler Hoyt,<br>A.B., University of Denver, 1891.<br>LL.B., Columbian University, 1893. | Wyoming. |
| Malcolm Hufty,<br>LL.B., Columbian University, 1893. | District of Columbia. |

| Name. | Residence. |
|---|---|
| A. L. Jackson,<br>LL.B., Columbian University, 1893. | Texas. |
| Sydney R. Jacobs,<br>LL.B., Columbian University, 1893. | Wisconsin. |
| J. Burr Johnson,<br>LL.B., Columbian University, 1893. | Maryland. |
| Messmore Kendall,<br>LL.B., Columbian University, 1893. | Colorado. |
| F. Henry Kiser,<br>LL.B., Columbian University, 1893. | Wisconsin. |
| Conrad Krebs,<br>LL.B., Georgetown University, 1892. | District of Columbia. |
| J. Arthur Lynham,<br>LL.B., Columbian University, 1893. | Virginia. |
| J. T. Macey,<br>LL.B., Columbian University, 1893. | New York. |
| Walker D. Maclean,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1893. | Illinois. |
| M. A. Martinez,<br>LL.B., Univ. of Lausanne, Switzerland, 1885. | Chile. |
| Lloyd T. Meeds, | District of Columbia. |
| George Clendenin Meigs,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| J. G. Meyers, Jr.,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Lawrence O. Murray,<br>Graduate Metropolis Law School, N.Y. city.<br>LL.B., Regents' University, N.Y. State, 1893. | New York. |
| Henry Newburgh, | California. |
| Fred. C. O'Connell,<br>LL.B., Columbian University, 1893. | Vermont. |
| William A. Pless,<br>LL.B., Columbian University, 1893. | Tennessee. |
| Howard S. Reeside,<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| E. S. Rockwell,<br>LL.B., Columbian University, 1893. | New York. |
| Louis A. Rosafy,<br>LL.B., Columbian University, 1893. | North Carolina. |

| Name. | Residence. |
|---|---|
| Morris E. Sabin,<br>LL.B., Columbian University, 1893. | Wisconsin. |
| Fountain F. Sams,<br>LL.B., Columbian University, 1893. | Illinois. |
| Abram Ralph Serven,<br>A. B., Hamilton College, 1887.<br>A. M., Hamilton College, 1890. | New York. |
| George H. Shields, Jr.,<br>A. B., Princeton, 1891.<br>LL.B., Columbian University, 1893. | Missouri. |
| Carroll W. Smith,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Felix O. Smith,<br>LL.B., Columbian University, 1893. | Vermont. |
| Henry Gordon Strong,<br>LL.B., Columbian University, 1890. | Wisconsin. |
| Bernard H. Taylor,<br>LL.B., Columbian University, 1893. | Illinois. |
| Herbert J. Taylor,<br>B. L., Washington and Lee University. | Virginia. |
| Frank Tharin,<br>LL.B., Columbian University, 1893. | South Carolina. |
| Corcoran Thom,<br>LL.B., Columbian University, 1893. | Maryland. |
| J. H. Thomas,<br>LL.B., Columbian University, 1893. | Missouri. |
| Addison C. Townsend,<br>LL.B., Columbian University, 1893. | Nebraska. |
| Ralph R. Upton,<br>A. B., Yale University, 1892.<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Mark A. Watson,<br>LL.B., Columbian University, 1893. | California. |
| Harry Weber,<br>LL.B., Columbian University, 1893. | Illinois. |
| George Francis Williams,<br>LL.M., Georgetown University, 1889. | District of Columbia. |
| A. L. Wood,<br>LL.B., Columbian University, 1893. | New Jersey. |

| Name. | Residence. |
|---|---|
| Edward A. Wright,<br>C. E., Lehigh University, 1889.<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| Fred. A. Wright,<br>A. B., Amherst College, 1884.<br>LL.B., Columbian University, 1893. | Massachusetts. |
| Herbert Wright,<br>M. E., Lehigh University, 1890.<br>LL.B., Columbian University, 1893. | Pennsylvania. |

Graduate Students, . . . . . 71.

**Seniors.**

| Name. | Residence. |
|---|---|
| Fred. Achenbach, | Missouri. |
| Edgar Allan, Jr., | Virginia. |
| Perry Allen, | Massachusetts. |
| Charles C. Baldwin, | Florida. |
| Franklin E. Barrett, | District of Columbia. |
| William W. Bedford, | California. |
| Edwin S. Bethel, | Illinois. |
| W. R. Blackford,<br>B. S., Columbian University, 1892. | District of Columbia. |
| S. Hazen Bond, | District of Columbia. |
| Joseph A. Burkart, | District of Columbia. |
| T. C. Catchings, Jr., | Mississippi. |
| Paul Ripley Clark,<br>A. B., Yale, 1892. | New York. |
| Malcolm Argyle Coles,<br>A. B., Richmond College, 1888. | Virginia. |
| P. E. Cox, | Tennessee. |
| Percy S. Crowe, | Indiana. |
| Allen A. Davis,<br>A. B., S. W. B. University, 1891. | Tennessee. |
| Murray M. Davis, | Virginia. |
| R. A. Davisson, | Illinois. |
| Fred. Dennett, | North Dakota. |
| Frederick W. Denniston, | Pennsylvania. |
| Harris Dickson, | Mississippi. |

| Name. | Residence. |
|---|---|
| Albert G. Dingley, | Maine. |
| A. B., Yale, 1892. | |
| Victor B. Dolliver, | Iowa. |
| A. B., Cornell, 1889. | |
| Frederic S. Doyle, | Pennsylvania. |
| C. W. Draper, | Montana. |
| J. Q. Eaton, | District of Columbia. |
| A. B., Dartmouth College, 1893. | |
| J. W. Ellis, | Oregon. |
| Selden M. Ely, | Virginia. |
| M. E., S. N. School, Indiana, Pa., 1888. | |
| Paul Finckel, | District of Columbia. |
| Keith Forrest, | District of Columbia. |
| Seinosuké Fukuda, | Japan. |
| A. M. Fuller, | Pennsylvania. |
| Graduate U. S. Military Academy, 1876. | |
| Henry H. Glassie, | Tennessee. |
| A. B., Johns Hopkins University, 1892. | |
| O. W. Goodwin, | Wisconsin. |
| James McIlvaine Gray, | Nebraska. |
| Thomas Gresham, | North Carolina. |
| Harry C. Grove, | West Virginia. |
| H. M. Gunderson, | District of Columbia. |
| J. Fossett Hays, | Ohio. |
| A. B., Wooster University, 1879. | |
| Walter R. Hensey, | District of Columbia. |
| Charles J. Hepburn, | Pennsylvania. |
| A. H. Hiller, | Michigan. |
| Ph. B., Hillsdale College, Mich., 1889. | |
| Ph. M., Hillsdale College, Mich., 1893. | |
| Frank H. Hitchcock, | Massachusetts. |
| A. B., Harvard, 1891. | |
| Francis C. Huebner, | Ohio. |
| Earle A. Humphrey, | North Carolina. |
| J. S. Jenkins, | Indian Territory. |
| Guy Hamilton Johnson, | District of Columbia. |
| T. C. Kelly, | Pennsylvania. |
| Thomas Kerl, | District of Columbia. |
| A. B., University of Michigan, 1891. | |
| Frank Kyselka, | Michigan. |

| Name. | Residence. |
|---|---|
| C. H. Lauchheimer. | Maryland. |
| Graduate U. S. Naval Academy, 1881. | |
| Edward T. Lee, | Connecticut. |
| A. B., Harvard, 1886. | |
| James Meriwether Lewis, | Virginia. |
| Reeve Lewis, | District of Columbia. |
| Harris Lindsley, | District of Columbia. |
| James Joseph McEvilly, | Montana. |
| Marvin M. McLean, | Texas. |
| B. L., University of Texas, 1890. | |
| John McPhaul, | Texas. |
| L. M. Marble, | District of Columbia. |
| B. S., Cornell University, 1892. | |
| E. B. Markham, | District of Columbia. |
| Marcus B. May, | District of Columbia. |
| William C. Mayo, | Virginia. |
| George A. H. Mills, | New York. |
| Edgar C. Molby, | Michigan. |
| Franklin Moore, | District of Columbia. |
| Gales P. Moore, | District of Columbia. |
| L. D. Manigault Mowry, | South Carolina. |
| H. L. Muldrow, Jr., | Mississippi. |
| H. Beach Needham, | Illinois. |
| Henry Newburgh, | California. |
| E. C. O'Brien, | District of Columbia. |
| John O'Connell, | Wisconsin. |
| James A. Oldfield, | West Virginia. |
| Lewis G. Olt, | Ohio. |
| R. H. Orr, | Delaware. |
| F. R. Parks, | District of Columbia. |
| B. S., Columbian University, 1883. | |
| Sterling Parks, | Ohio. |
| A. B., University of Michigan, 1888. | |
| E. H. Parry, | Connecticut. |
| Isaac Pearson, | South Dakota. |
| LL.B., University of Michigan, 1883. | |
| Seth V. Peck, | Iowa. |
| U. G. Perry, | Pennsylvania. |
| John A. Robinson, | Ohio. |
| Robert L. Russell, | Georgia. |
| Graduate U. S. Naval Academy, 1885. | |

| Name. | Residence. |
|---|---|
| Walter H. Ryland, | Virginia. |
| A. B., Richmond College, 1891. | |
| Harold N. Saxton, | New York. |
| John C. Scofield, | Georgia. |
| A. B., Middleburg College. | |
| Charles F. Sensner, | Virginia. |
| H. C. Sheridan, | District of Columbia. |
| Albert D. Spangler, | Pennsylvania. |
| Luther F. Speer, | Pennsylvania. |
| Arle W. Starck, | Arkansas. |
| Carl A. Starck, | Arkansas. |
| Robert A. Stickney, | Florida. |
| Clifford M. Stoy, | District of Columbia. |
| J. Walker Stuart, | South Carolina. |
| Harry C. Surguy, | Ohio. |
| Albert Vincent Taylor, | Ohio. |
| Seth Elliott Tracy, | Texas. |
| H. J. Van Der Beek, | New York. |
| E. W. Van Dyke, | District of Columbia. |
| John Chalmers Wilson, | Maryland. |
| Charles Hewitt Wright, | Massachusetts. |
| A. B., Williams College, 1892. | |

Seniors, . . . . . 102.

**Juniors.**

| Name. | Residence. |
|---|---|
| R. T. Able, | South Carolina. |
| W. J. Acker, | District of Columbia. |
| Jos. Benjamin Adler, | New York. |
| Thomas A. Aiton, | District of Columbia. |
| Edwin W. Ashford, | District of Columbia. |
| M. D., Columbian University, 1890. | |
| Woolsey Aspinwall, | District of Columbia. |
| Brainard Avery, | Vermont. |
| Clinton T. Azpell, | Pennsylvania. |
| Orville E. B. Bailey, | Pennsylvania. |
| George Wilson Baker, | District of Columbia. |
| L. C. Baker, | Wyoming. |
| H. S. Barrick, | District of Columbia. |

| Name. | Residence. |
|---|---|
| C. W. Bartlett, | New York. |
| Ph. B., Cornell University, 1890. | |
| Morris Bien, | California. |
| B. S., University of California, 1879. | |
| J. D. Black, | Illinois. |
| James G. Blaine, Jr., | Maine. |
| Michael Blenski, | Wisconsin. |
| Andrew Y. Bradley, | District of Columbia. |
| Charles A. Brown, | Ohio. |
| Lewis C. Brown, | New York. |
| T. Wingfield Bullock, | Virginia. |
| Frank A. Burger, | District of Columbia. |
| P. E. Cabell, | Virginia. |
| M. K. Campbell, | Illinois. |
| D. J. Carr, | Connecticut. |
| Jefferson Paul Chandler, | New York. |
| A. B., Princeton, 1893. | |
| Howard L. Christman, | District of Columbia. |
| John B. Clark, Jr., | District of Columbia. |
| R. E. Claughton, | Virginia. |
| Alan O. Clephane, | District of Columbia. |
| Walter T. Colquitt, | Georgia. |
| Jno. S. Copeland, | Arkansas. |
| Jesse P. Crawford, | Kentucky. |
| J. A. E. Criswell, | New York. |
| Alfred N. Dalrymple, | District of Columbia. |
| J. Slater Davidson, | District of Columbia. |
| Bramwell Davis, | Kansas. |
| Silas B. Davis, | West Virginia. |
| William R. Davis, | New York. |
| John E. Dawson, | Massachusetts. |
| Hampton Y. Denman, Jr., | District of Columbia. |
| Charles E. Diggs, | Michigan. |
| G. Thomas Dunlop, | District of Columbia. |
| C. E., Princeton, 1892. | |
| B. A. Enloe, Jr., | Tennessee. |
| Harry C. Evans, | Iowa. |
| J. R. Fellows, Jr., | New York. |
| John J. Fitzgerald, | Rhode Island. |
| A. B., Brown University, 1893. | |

| Name. | Residence. |
|---|---|
| George C. Fraser, B. S., Princeton, 1893. | District of Columbia. |
| John W. Frost, | Illinois. |
| L. W. Gambrill, | Maryland. |
| L. William Gammon, | New York. |
| Don Eujenio Gana, Ph. B., University of Chile, 1893. | Chile. |
| D. E. Garges, | District of Columbia. |
| Edward A. Gay, | New Jersey. |
| Henry L. Godsey, | Kentucky. |
| J. C. Goodfellow, | District of Columbia. |
| A. P. Gorman, Jr., | Maryland. |
| H. B. Gram, | Ohio. |
| John G. Gray, Ph. B., Delaware College, 1883. | Delaware. |
| A. E. Grinnell, | Iowa. |
| F. J. Haig, | Kansas. |
| George C. Hazelton, Jr., | District of Columbia. |
| John H. Hazelton, A. B., Johns Hopkins University, 1893. | District of Columbia. |
| George W. Hess, | District of Columbia. |
| Julius V. Hoeffler, | Ohio. |
| Arthur M. Hood, B. S., Rose Polytechnic Institute, 1893. | Indiana. |
| A. L. Hough, | New York. |
| H. R. Howenstein, | District of Columbia. |
| T. L. Hume, | District of Columbia. |
| Ernest N. Janson, | New Jersey. |
| A. R. Johnson, | District of Columbia. |
| Griffith L. Johnson, | Indiana. |
| Eugene A. Jones, | District of Columbia. |
| Lee Mason Jordan, | Georgia. |
| Carter B. Keene, | Maine. |
| Harry G. Kimball, B. S., Amherst College, 1893. | District of Columbia. |
| Milton E. King, | District of Columbia. |
| S. E. Kramer, | Georgia. |
| C. M. Lane, | Missouri. |
| Rufus H. Lane, Graduate U. S. Naval Academy, 1891. | Ohio. |

| Name. | Residence. |
|---|---|
| Ralph Hutchinson Light, | District of Columbia. |
| B. S., University of Pennsylvania, 1891. | |
| Warren G. Light, | District of Columbia. |
| William H. Lopp, | District of Columbia. |
| Patrick H. Loughran, | District of Columbia. |
| Alexander D. Lunt, | New York. |
| B. S., Worcester Polytechnic Institute, 1891. | |
| M. E., Cornell University, 1892. | |
| M. M. E., Cornell University, 1893. | |
| Henry Hyde Lyon, | Kentucky. |
| Ormsby McCammon, | District of Columbia. |
| Joseph R. McCann, | Tennessee. |
| J. H. McGibbons, | Iowa. |
| A. B., Chaddock College, Ill., 1887. | |
| A. M., Chaddock College, Ill., 1890. | |
| C. K. Macey, | New York. |
| C. Carroll Martin, | District of Columbia. |
| J. A. Mathews, | Illinois. |
| John M. Maury, | Virginia. |
| Edgar H. May, | District of Columbia. |
| D. H. Mead, | District of Columbia. |
| J. N. Morris, | District of Columbia. |
| W. C. Morrison, | West Virginia. |
| Edwin A. Niess, | Pennsylvania. |
| George T. Nixon, | Illinois. |
| Francis Nye, | District of Columbia. |
| Henry Orth, Jr., | District of Columbia. |
| Isaac B. Owens, | Maryland. |
| A. J. Pearson, Jr., | Ohio. |
| W. D. Peck, | Kentucky. |
| P. K. Pennington, | Alabama. |
| Graham H. Powell, | New York. |
| Ralph C. Powell, | Ohio. |
| A. B., Yale, 1892. | |
| Jesse W. Rawlings, | District of Columbia. |
| J. B. Reynolds, | Massachusetts. |
| A. B., Dartmouth College, 1890. | |
| A. M., Dartmouth College, 1893. | |
| S. Joseph Ripps, | Texas. |
| W. P. Robinson, | West Virginia. |

| Name. | Residence. |
|---|---|
| Joseph K. Roberts, | Maryland. |
| William H. Sackett, | Nebraska. |
| A. Monell Sayre, | New York. |
| E. C. Schneider, | Illinois. |
| C. L. Shaver, | West Virginia. |
| E. D. Sherburne, | New Hampshire. |
| A. B., Dartmouth College, 1890. | |
| John B. Sleman, Jr., | District of Columbia. |
| Addison T. Smith, | Ohio. |
| F. M. Smith, | West Virginia. |
| Frank Hubert Stewart, | Massachusetts. |
| A. B., Harvard University, 1892. | |
| Richmond Stone, | New York. |
| A. B., Harvard University, 1893. | |
| James Struthers, | District of Columbia. |
| Fred. G. Stutz, | District of Columbia. |
| W. L. Symons, | Ohio. |
| Thomas G. Talbert, | South Carolina. |
| Boyd Taylor, | District of Columbia. |
| C. R. Taylor, | Virginia. |
| J. Ford Thompson, Jr., | District of Columbia. |
| Mowen Thompson, | District of Columbia. |
| Howe Totten, | District of Columbia. |
| A. B., Harvard University, 1893. | |
| Matthew Trimble, Jr., | District of Columbia. |
| W. J. Turner, | Virginia. |
| F. R. Tyler, | Virginia. |
| Guy Underwood, | Ohio. |
| John G. Urquhart, | Virginia. |
| H. G. Van Evern, | New York. |
| M. E., Cornell University, 1891. | |
| Forrest F. Vrooman, | Virginia. |
| P. G. Wallmo, | Connecticut. |
| B. H. Warner, Jr., | District of Columbia. |
| George A. Warren, | District of Columbia. |
| Thomas Washington, | District of Columbia. |
| H. C. Waterbury, | Illinois. |
| Charles G. Watson, | Connecticut. |
| W. W. Werntz, | Massachusetts. |
| Horace H. Westcott, | District of Columbia. |

| Name. | Residence. |
|---|---|
| W. H. White, | Missouri. |
| E. W. Williams, | New York. |
| Frank William, Jr., | Virginia. |
| W. H. Williams, Jr., | North Carolina. |
| D. E. Wilson, | District of Columbia. |
| A. B., Western Maryland College, 1893. | |
| Edward C. Wilson, | Canada. |
| B. S., Swarthmore College, 1891. | |
| Harvey T. Wingfield, | District of Columbia. |
| Mendum Wood, | District of Columbia. |
| Robert H. Young, | District of Columbia. |
| Juniors, . . . . . | 153. |

**Recapitulation.**

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|---|---|
| Graduates, . . . . . | 71 |
| Seniors, . . . . . | 102 |
| Juniors, . . . . . | 155 |
| | 328 |

# THE MEDICAL SCHOOL.

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**The Faculty.**

JAMES C. WELLING, LL.D.,
President.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery.

W. W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine.

A. F. A. KING, A. M., M. D.,
Professor of Obstetrics and the Diseases of Women and Children, and Dean of the Faculty.

D. W. PRENTISS, A. M., M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, A. M., PH. D.,
Professor of Chemistry and Toxicology.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

WM. M. GRAY, M. D.,
Professor of Normal and Pathological Histology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Pædiatrics.

H. L. E. JOHNSON, M. D.,
Professor of Gynecology.

THOMAS E. McARDLE, A. M., M. D.,
Professor of Minor Surgery.

THEOBALD SMITH, M. D.,
Professor of Bacteriology and Hygiene.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology.

A. CLARK PATTERSON, M. D.,
Professor of Mental Diseases.

EDMUND L. TOMPKINS, M. D.,
Professor of Nervous Diseases.

---

**Clinical Professors.**

J. FORD THOMPSON, M. D.,
Clinical Professor of Surgery.

WILLIAM W. JOHNSTON, M. D.,
Clinical Professor of Medicine.

GEORGE N. ACKER, M. D.,
Clinical Professor of Medicine.

H. L. E. JOHNSON, M. D.,
Clinical Professor of Diseases of Women.

SAMUEL S. ADAMS, M. D.,
Clinical Professor of Diseases of Children.

WILLIAM K. BUTLER, M. D.,
Clinical Professor of Ophthalmology.

CHARLES W. RICHARDSON, M. D.,
Clinical Professor of Laryngology and Otology.

EDMUND L. TOMPKINS, M. D.,
Clinical Professor of Diseases of the Nervous System.

GEORGE BYRD HARRISON, M. D.,
Clinical Professor of General Medical Diseases.

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**Demonstrators.**

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

VERANUS A. MOORE, B. S., M. D.,
Demonstrator of Pathological Histology.

PHILIP JAISOHN, M. D.,
Demonstrator of Normal Histology.

GLENDIE B. YOUNG, M. D.,
JOHN VAN RENSSELAER, M. D.,
WILLIAM F. R. PHILLIPS, M. D.,
LOUIS MACKALL, JR., M. D.,
JOHN R. WELLINGTON, M. D.,
WILLIAM S. GOODALL, M. D.,
THEODORE W. RICHARDS, M. D.,
Assistant Demonstrators of Anatomy.

JAMES R. CHURCH, M. D.,
ISAAC W. BREWER, M. D.,
Prosectors of the Chair of Anatomy.

JOHN VAN RENSSELAER, M. D.,
JOHN R. WELLINGTON, M. D.,
Demonstrators of Minor Surgery.

FRANCIS R. HAGNER, M. D.,
IRVING W. RAND, M. D.,
MIDDLETON S. ELLIOTT, M. D.,
Clinical Assistants.

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A. F. A. KING, M. D., DEAN,
1315 Massachusetts Avenue N. W., Washington, D. C.

## MEDICAL DEPARTMENT.

### Annual Announcement of the Session of 1894–'95.

The Seventy-third Course of Lectures begins on Monday, October 1, 1894, and continues seven months.

The Introductory Lecture of the Course will be delivered by Prof. EMIL A. DE SCHWEINITZ on the 1st of October, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The system of instruction adopted by the Medical Department of this University includes a general course of lectures on each of the seven essential branches of medical science, namely, Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Surgery, Obstetrics, and the Theory and Practice of Medicine. Special courses are also given upon diseases of particular organs, such as the eye, ear, throat, etc., combined with clinical instruction in the various hospitals and dispensaries of the city. In these clinics the student is made familiar with the methods of examining patients, analyzing symptoms, making a diagnosis and prognosis of the cases, and recording medical histories. He is also taught to prescribe medicines and observe their effects, and to perform surgical operations.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Surgery.

PROFESSOR J. FORD THOMPSON, M. D.,

One of the Attending Surgeons to the Children's Hospital and to the Garfield General Hospital.

The course will embrace Didactic Lectures upon the Principles and Practice of Surgery, and, as far as practicable, Clinical Instruction at the College.

Professor THOMPSON being the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Every effort will be made to teach Surgery in accordance with the latest developments of scientific research. At the College operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction will be given by Professors MCARDLE and VAN RENSSELAER in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### Theory and Practice of Medicine.

PROFESSOR W. W. JOHNSTON, M. D.,

One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes which occur in many diseases and to which all the structures of the body are liable. General or constitutional diseases and local diseases or diseases of organs are described in order.

As the subjects taught from the Chair are so numerous and cover so wide a field, two years are required to complete the course. The lectures of each year therefore form a distinct and complete series, and it is necessary for the student to follow attentively the Lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress, and are absolutely necessary to a complete understanding of the studies of this Chair. They are considered obligatory studies.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

### Obstetrics and the Diseases of Women and Children.

PROFESSOR A. F. A. KING, A.M., M. D.,

One of the Consulting Physicians to the Children's Hospital and Obstetrician to the Columbia Hospital for Women.

This course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the Lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin for demonstrating obstetrical operations has been added to the illustrative apparatus.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

### Chemistry and Toxicology.

PROFESSOR EMIL A. DE SCHWEINITZ, A. M., PH. D.

The instruction of this Department embraces:

1st. A short discussion of the various branches of Physics, as Specific Gravity, Pneumatics, Heat, Light, Electricity, etc., so far as they relate to the Science of Chemistry.

2d. The principles of chemical philosophy, the laws of chemical combinations, and of chemical affinity in general.

3d. A discussion of the elementary bodies, both metallic and non-metallic; the best methods of preparing the various inorganic bodies, their properties and reactions, and the means of detecting their presence.

4th. The so-called "organic bodies" will be considered as far as time will permit, especially those most useful to the physician, such as organic acids and their salts, the alkaloids, etc.

Throughout the entire Course the application of Chemistry to Medicine and Pharmacy will be constantly brought before the student.

Special attention is given to toxicology. The various poisons are studied, so far as the tests for their presence and appropriate antidotes are concerned.

The principles of the science are abundantly illustrated by experiments.

### Physiology.

PROFESSOR WILLIAM P. CARR, M. D.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of lectures, and these lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial pains will be taken to emphasize those truths that have a known practical value.

### Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A. M., M. D.,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical relations of the Materia Medica is not overlooked, but time does not admit of their being considered in great detail in the lecture-room. They are rather proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick-room.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

### Anatomy.

PROFESSOR D. KERFOOT SHUTE, A. B., M. D.,

Ophthalmic Surgeon to the Washington Hospital for Foundlings.

This course of Lectures is arranged with the view of rendering the didactic instructions in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to qualify one for the practice of medicine may be acquired during the two courses of Lectures from the Chair which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the Surgical and Medical Relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the Lecturer from time to time.

DRS. JAMES R. CHURCH and ISAAC W. BREWER, Prosectors to the Chair of Anatomy, will prepare the subject for the Lecturer.

DR. STERLING RUFFIN, Demonstrator of Anatomy, and his Assistants, DRS. YOUNG, VAN RENSSELAER, GOODALL, MACKALL, WELLINGTON, PHILLIPS, and RICHARDS, give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, sufficient only to cover the expense of procuring and preparing it. The room is open both during the

day and night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

### Lectures on Special Subjects.

DERMATOLOGY.—Professor YARROW will give a course of lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

PÆDIATRICS.—Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

GYNECOLOGY.—The diseases peculiar to women will be given special attention by Professor H. L. E. JOHNSON, in charge of the department of gynecology, Central Dispensary and Emergency Hospital, who will illustrate this course by clinical demonstrations at the Hospital.

MINOR SURGERY.—This course will consist of practical instruction under the direction of Professor MCARDLE, assistant physician Children's Hospital, and his assistants. The students will apply the various splints, bandages, surgical dressings, etc., for themselves.

BACTERIOLOGY.—No part of medical study is of more scientific importance and interest than this, which deals with the etiology of so many pathological processes. It will be taught by Professor THEOBOLD SMITH.

OPHTHALMOLOGY.—Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

MEDICAL JURISPRUDENCE.—Professor RUFFIN'S course will deal with the relations of physicians to matters of legal investigation, and the students will be taught how to give expert testimony and how to conduct themselves as witnesses.

LARYNGOLOGY AND OTOLOGY.—This course will comprise lectures on diseases of the nasal passages, pharynx, and larynx, and also of the ear. Professor RICHARDSON, laryngologist to the Providence Hospital, will give practical instruction in the use of the laryngoscope and other instruments required in this special branch.

MENTAL DISEASES.—Professor PATTERSON, one of the resident physicians at the Government Hospital for the Insane, will deal with the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

HYGIENE.—The importance of hygienic conditions in the treatment and prevention of disease will be fully considered in this course. The purity of water, air, foods, etc., and the methods by which these are determined will receive particular attention.

NERVOUS DISEASES.—Dr. E. L. TOMPKINS, resident physician of Dr. Wm. A. Hammond's Hospital for Nervous Diseases, and in charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital, will lecture upon the more common and important of these affections.

HISTOLOGY AND PATHOLOGICAL HISTOLOGY.—Practical laboratory instruction will be given on these subjects:

Dr. WM. M. GRAY will conduct a course of practical instruction in Normal Histology and Pathological Histology. In this course students will have the opportunity to become familiar with the use of the microscope, and with the minute anatomy of the tissues and organs of the body, both in health and disease.

The course in Normal Histology is open to students during the first and second years of their tuition, and the course in Pathological Histology to third and fourth year students only. Both these courses constitute a necessary part of college work, and attendance upon them is not optional with the student, but obligatory.

### Laboratory Instruction.

New Laboratories have been recently provided for practical instruction in Bacteriology, Normal and Pathological Histology, and Chemistry.

The student will specially be instructed in the Technique of Microscopical work, such as hardening specimens, cutting sections with the Microtome, staining sections, and making permanent mountings. He will be taught to recognize the appearances of Normal and Pathological sections.

He will be instructed in the methods of culture of Bacteria, method of staining them, etc.

Practical instruction in Urine Analysis and Toxicology will be given in the new laboratory.

The Bandaging Rooms, for instruction in Minor Surgery, have been supplied with four new manikins, recently imported for this purpose.

### Clinical Instruction.

Attendance upon Clinical Instruction in Medicine and Surgery, during at least two years, is required, and when the student presents himself for examination a certificate to this effect must be furnished.

GARFIELD HOSPITAL.—Clinical lectures will be given regularly during the session by Professor J. FORD THOMPSON on Surgery, and by Professor G. N. ACKER on Medicine. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, J. FORD THOMPSON, and S. S. ADAMS. An opportunity is here afforded of observing and the medical and surgical diseases, injuries, etc., to which children are liable. The dispensary service of the hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors G. B. HARRISON, in charge of the department of general medicine, and E. L. TOMPKINS, in charge of nervous diseases, and H. L. E. JOHNSON, in charge of the department of diseases of women, will conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

### Requirements for Matriculation and Graduation.

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either submit themselves to an examination or, in lieu thereof, present a satisfactory certificate of their attainments from some college.

Should an examination be necessary it will comprise the following subjects:

1. English composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Students conditioned or unable to undergo the examination in Latin or in Elementary Physics may obtain instruction on these subjects during the Freshman year, and on passing a satisfactory examination before the beginning of the second year will be admitted to matriculation.

Students desiring instruction in Latin, Physics, etc., may obtain it from Dr. O. A. M. McKIMMIE, 1333 N street N. W., to whom they are referred for particulars as to the arrangement of time, fees, etc.

II. Candidates for the degree of Doctor of Medicine must have attended four courses of lectures, the subjects to be arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, Minor Surgery, Bacteriology, Histology, and Practical Anatomy. Examination at the end of the year upon the above-named subjects.

SECOND YEAR.—Anatomy, Physiology, Chemistry, Materia Medica, and Therapeutics, Hygiene, Otology, Laryngology, Histology, Clinics, and Practical Anatomy. Examination at the end of this year upon the above-named subjects.

THIRD YEAR.—Surgery, Medicine, Obstetrics, Gynecology, Dermatology, Ophthalmology, Pathological Histology, Clinical Medicine, and Surgery. Examination on the above-named subjects at the end of the year.

FOURTH YEAR.—Surgery, Medicine, Obstetrics, Mental Diseases, Medical Jurisprudence, Nervous Diseases, Pædiatrics, Pathological Histology, Clinical Medicine, Surgery, etc. Final examination at the close of the fourth year upon the above-named subjects.

III. Students of other Institutions who have attended one course of lectures in any regular Medical School will be placed upon the same footing with those who have attended one course in this College, and those who have attended two (or three) courses of lectures in any other regular College or Colleges will rank with those who have attended two (or three) courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described. (See p. 34.)

IV. Candidates for graduation must have studied medicine four years. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have practised dissection at least two sessions, during each of which he shall be required to dissect two "parts" of a

subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will be both written and oral. The examinations for the degree will be held at the end of the session in April. Students who fail to pass the examination in April may be re-examined in October if, in the judgment of the Faculty, they have shown the proficiency requisite to render such a course advisable. The diploma is granted only at the Annual Commencement in May.

VII. Graduates of other accredited Medical Colleges must pass a satisfactory examination on all of the seven essential branches of medicine before receiving a diploma from this University.

### Prizes.

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination.

The Faculty will also award two additional prizes—one for proficiency in "*Clinical Medicine*," and one for proficiency in "*Clinical Surgery*."

At the Commencement in May, 1893, the General Examination Prize was awarded to WILLIAM C. BUCK, of New Hampshire, honorable mention being made of THEODORE W. RICHARDS, of District of Columbia; DEANE C. HOWARD, of Massachusetts, and EDWARD S. SEIBERT, of Pennsylvania.

The Clinical Medicine Prize was awarded to GEORGE W. LEADLEY, of New York, honorable mention being made of MARGARET M. YORK, of Louisiana; JAMES R. CHURCH, of District of Columbia, and EDWARD G. SEIBERT, of Pennylvania.

The Clinical Surgery Prize was awarded to VAN BUREN KNOTT, of Iowa.

### Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the medical student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature. The Army Medical Museum is also open for inspection daily from 9 to 3 o'clock. With its unrivaled collection of anatomical and pathological specimens,

illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind, this Museum presents a field for study superior to any other institution of the kind, either in this country or Europe.

Apart from these considerations, students from a distance have the opportunity of spending a winter profitably at the seat of the National Government during the sessions of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country; and, of special interest to the medical student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the grounds of the Agricultural Department, where the student of botany may find a rare collection of medicinal plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of many curious medical and surgical instruments may be daily inspected from 9 to 3 o'clock, thus affording to the student an opportunity of studying the mechanical contrivances used in Medicine, Surgery, and Obstetrics, that is not to be obtained in any other city.

### Fees, Regulations, etc.

| | |
|---|---|
| Matriculation Fee, payable only once | $5 00 |
| Single Tickets | 20 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Full Course, first year | 75 00 |
| Full Course, second year | 75 00 |
| Full Course, third year | 75 00 |
| Full Course, fourth year | 75 00 |

This annual fee of seventy-five dollars does *not* include the ticket of the Demonstrator of Anatomy, nor any fee for Laboratory work, but *does* include all examination fees and clinical instruction.

Students who matriculated during or before the session of 1892-'93, prior to the adoption of the four-year plan, will be charged in conformity with the old regulations, as follows:

| | |
|---|---|
| FIRST COURSE: | |
| Matriculation Fee | $5 00 |
| Four Primary Tickets | 60 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Total | $75 00 |
| SECOND COURSE: | |
| Four Primary Tickets | $60 00 |
| Three Final Tickets | 45 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Examination Fee (Primary Branches) | 20 00 |
| Total | $135 00 |
| THIRD COURSE: | |
| Three Final Tickets | $45 00 |
| Examination Fee (Final Branches) | 10 00 |
| Total | $55 00 |

The expense for Laboratory tickets to *all* students for Chemistry, Normal Histology, Bacteriology, and Pathological Histology will be five dollars for *each branch* (total, $20).

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Dean to suit the convenience of the student.*

By virtue of a liberal endowment from the late Mr. W. W. CORCORAN this College is enabled to offer six Free Scholarships, which are under the supervision of the Columbian University. Applicants for the privileges of this endowment must produce a certificate from the authorities of the University that they have been fitted by previous education for the study of medicine. Applications should be addressed to the Dean * and sent in not later than the end of September, accompanied with written evidence of pecuniary inability and certificates of moral character and industry. This is the only mode by which any deduction can be made from the regular fees, except as hereinafter stated.

Graduates of other accredited Medical Colleges, after five years, are

* Who, on request, will forward blanks to be filled up by the applicant.

required to matriculate only. Prior to the expiration of five years the fee for a general ticket is $75.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from $12 to $30 per month, and rooms may be obtained for $10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at No. 1325 H St. N. W., and is within half a square of three lines of street cars going to every part of the city.

Students desiring further information are requested to address the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,
1315 *Massachusetts Avenue N. W., Washington, D. C.*

Telephone, 885.

### Text Books and Works of Reference.

ANATOMY.—*Gray's*,* Morris', or Quain's Anatomy; Holden's Manual of Dissection.

PHYSIOLOGY.—*Flint's Physiology*, or Foster and Langley's Practical Physiology; Yeo's Physiology.

CHEMISTRY.—*Barker's*, Attfield's, Bloxam's, or Fowne's Chemistry, Bowman's Medical Chemistry, Witthaus' Chemistry, and Remsen's Organic Chemistry.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*, National Dispensatory, Edes' Therapeutics.

SURGERY.—*Ashurst's*, Gross' System of Surgery, Erichsen's or Druitt's Surgery.

PRACTICE OF MEDICINE.—Loomis' Practice, Osler's Practice, Strümpell's Text Book of Medicine; System of Medicine (Pepper), Da Costa's Medical Diagnosis; Vinordt's Medical Diagnosis.

OBSTETRICS.—*Playfair's*, Leishman's, or Lusk's Obstetrics, King's Manual *Thomas and Mundé* on Diseases of Women, *J. Lewis Smith*, or W. H. Day, or Meigs and Pepper on Diseases of Children, and Skene on Diseases of the Female Bladder and Urethra.

PATHOLOGICAL ANATOMY AND HISTOLOGY.—Green's Pathology, Frey's or Stricker's Histology, Rindfleisch's Pathological Histology, Cornil and Ranvier, Ziegler's Pathological Anatomy, Delafield and Prudden's Pathological Anatomy.

*Gould's Medical Dictionary*, Thomas' Medical Dictionary.

*The works first named and in *italics* are preferred.

## Students of Medicine.

| Name. | Residence. |
|---|---|
| May D. Baker, | Kansas. |
| Grafton Tyler Baldwin, | District of Columbia. |
| Frank A. Barbour, | District of Columbia. |
| Walter K. Beatty, | District of Columbia. |
| Joseph L. Belfler, | District of Columbia. |
| John W. Bennett, | District of Columbia. |
| John H. Berry, | District of Columbia. |
| Winfred E. Berry, | Maryland. |
| Archie W. Boswell, | District of Columbia. |
| Fannie C. Brewer, | Maryland. |
| Mary A. Brosius, | Pennsylvania. |
| William T. Burch, | District of Columbia. |
| Edgar C. Campbell, | District of Columbia. |
| Dewitt C. Chadwick, | Ohio. |
| Edward J. Collins, M. D., | Minnesota. |
| Edgar F. Conant, | Maine. |
| Ralph D. Converse, | New Hampshire. |
| Henry K. Craig, | Maine. |
| John M. Cunningham, | Illinois. |
| George R. Currier, | Maine. |
| Joel Curry, | Georgia. |
| John Dale, | Pennsylvania. |
| Edward Y. Davidson, | Virginia. |
| William E. Davis, | Maryland. |
| Joseph C. Davison, | New Jersey. |
| Henry J. Decker, | New York. |
| Harry M. Dixon, | Mississippi. |
| William H. Dobson, | Pennsylvania. |
| Wm. C. Downey, Phar. G., | District of Columbia. |
| George B. Driesbock, | Wisconsin. |
| Jerry S. Driver, | District of Columbia. |
| Walter C. Duff, | Maryland. |
| James D. Eggleston, | New Jersey. |
| Middleton S. Elliott, | South Carolina. |
| Rudolph H. v. Ezdorf, | Pennsylvania. |
| James M. Fairly, | Mississippi. |
| Warren Dexter Fales, | Illinois. |
| Stanley W. Finch, | New York. |
| Fred. O. Fish, A. B., | Maine. |

| Name. | Residence. |
|---|---|
| Henry Z. Fish, | Kansas. |
| Charles L. Fisher, | Virginia. |
| Gailliard S. Fitzsimons, | South Carolina. |
| Joseph Herbert Ford, B. S., | District of Columbia. |
| W. Ashby Frankland, | Virginia. |
| Eugene S. Geery, | District of Columbia. |
| Orange C. Gilliland, | Illinois. |
| Luther M. Gotwald, | District of Columbia. |
| Howard H. Graham, | Ohio. |
| Thomas A. Griffin, | Virginia. |
| Alfred G. Grunwell, | District of Columbia. |
| John W. Gue, | Illinois. |
| Oscar J. Gwynn, | Colorado. |
| Jonathan R. Hagan, D. D. S., | Virginia. |
| Joseph K. Hagmann, | District of Columbia. |
| Francis R. Hagner, | District of Columbia. |
| James R. Hamilton, | Texas. |
| Bernard L. Hardin, B. S., | Virginia. |
| Ralph A. Harding, | District of Columbia. |
| Frederick McG. Hartsock, | District of Columbia. |
| William E. Hertford, | District of Columbia. |
| William R. B. Holland, | West Virginia. |
| Abram B. Hooe, | Virginia. |
| Charles J. Hopkins, | District of Columbia. |
| C. Norman Howard, | Pennsylvania. |
| Montgomery Hunter, | Virginia. |
| Joe E. Hurst, | Canada. |
| Paul C. Hutton, | North Carolina. |
| Virgil B. Jackson, | Virginia. |
| Charles James, | District of Columbia. |
| Charles R. Johnson, | Delaware. |
| Joseph Russell Johnson, | Virginia. |
| Sidney L. Johnson, | District of Columbia. |
| Valentine M. Johnson, Jr., | Virginia. |
| John E. Jones, | Ohio. |
| Llewellyn Jordon, LL.B., | Mississippi. |
| George F. Juenemann, | District of Columbia. |
| Carolyn I. Keife, | Massachusetts. |
| Ulysses S. G. Keller, | Pennsylvania. |
| William A. Kinnan, | Michigan. |

| Name. | Residence. |
|---|---|
| Frank A. Kirby, | Massachusetts. |
| Alice K. Koogle, B. S., | Ohio. |
| Hanson T. A. Lemon, | District of Columbia. |
| Eugene L. Le Merle, | District of Columbia. |
| Victor A. Lewis, | Maryland. |
| Matthew O'R. Loveaire, | District of Columbia. |
| Kate E. Lozier, | Connecticut. |
| L. Fleet Luckett, | District of Columbia. |
| Robert L. Lynch, Ph. D., | Indiana. |
| William L. Masterson, | Ohio. |
| William W. Matthews, | Louisiana. |
| Sherman D. Maynard, B. S., | New York. |
| Frank A. Mazzei, | District of Columbia. |
| Donald McDonald, | District of Columbia. |
| James S. McIlhenny, | District of Columbia. |
| George N. McLoughlin, | Tennessee. |
| Eaton K. McNeil, | Tennessee. |
| Frank O. McNew, | Tennessee. |
| Homer S. Medford, | District of Columbia. |
| Edwin R. Mills, | Virginia. |
| William P. Mills, A. B., | Maryland. |
| John W. Morgan, | District of Columbia. |
| Robert L. Morgan, | Pennsylvania. |
| William H. Muckleston, | New Jersey. |
| Alexander Murray, | Virginia. |
| William S. Newell, | Indiana. |
| James B. Newton, Ph. G., | New Jersey. |
| William K. Olds, | Michigan. |
| John N. Oliver, Jr., | District of Columbia. |
| Harry Parsons, | New York. |
| Josie Craig Parsons, | Illinois. |
| Rolla D. Pope, B. S., | Illinois. |
| Herbert W. Porter, | Connecticut. |
| Margaret S. Potter, | Pennsylvania. |
| George T. Prewitt, | Texas. |
| Woodbury Pulsifer, A. M., | Maine. |
| Tunis C. Quick, | Virginia. |
| David E. Quinn, Ph. G., | Ohio. |
| Arthur C. Rauterberg, | District of Columbia. |
| Fred. A. Read, | New Hampshire. |

| Name. | Residence. |
|---|---|
| Joseph O. Reed, | Massachusetts. |
| Delos N. Reeve, | Iowa. |
| John L. Reid, D. D. S., | District of Columbia. |
| Victor B. Rench, | Maryland. |
| Edward E. Richardson, | Vermont. |
| James M. Salmon, B. A., | Pennsylvania. |
| William N. Sayre LL. M., | Oregon. |
| Henry H. Seltzer, | Pennsylvania. |
| Thomas M. Shepherd, | District of Columbia. |
| William E. Sims, | South Carolina. |
| Percy G. Smith, Ph. G., | Maryland. |
| Homer L. Spaulding, | Kansas. |
| Lemuel J. Stanton, | Iowa. |
| Mary C. Stanton, | Iowa. |
| John W. Stearns, | District of Columbia. |
| John Hamilton Stone, A. B., | District of Columbia. |
| Daniel B. Street, | District of Columbia. |
| Milo H. Sutliff, | Utah. |
| Elisha Theall, | New York. |
| Joseph Lawn Thompson, | Maryland. |
| James R. Tubman, | District of Columbia. |
| William A. Tyler, | Nebraska. |
| Denny S. Verdi, | District of Columbia. |
| William S. Washburn, | New York. |
| Richard Washington, | District of Columbia. |
| Gottlieb Wehrle, B. S., | Wisconsin. |
| Gustavus E. Werber, A. B., | South Carolina. |
| William O. Wetmore, | New York. |
| William E. Whitson. | District of Columbia. |
| Thomas A. Whittington, | Nebraska. |
| Edwin P. Wolfe, | Iowa. |
| Total . . . . . | 150 |

actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of Clinical experience.

A large, comfortable, and well-lighted dental laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe keeping of instruments belonging to the students.

The extracting room is separate from the others and is fitted up for the proper administration of the various anæsthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. J. R. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of his many years' experience in Dental Practice.

The Infirmary is open every week-day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of Clinical material is readily available. In fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of *twenty-seven months' actual practice* in the Infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Prosthetic Dentistry and Metallurgy.

PROFESSOR J. HALL LEWIS, D. D. S.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught,

and Bridge-work, the construction of appliances for correcting Oral Irregularities, Interdental Splints for Fractures, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor LEWIS will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual every-day practice of Prosthetic Dentistry.

### Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR HENRY C. THOMPSON, D. D. S.

This Course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

### Chemistry.

PROFESSOR E. A. DE SCHWEINITZ, PH. D.

The instruction of this Department embraces:

1st. A short discussion of the various branches of Physics, as Specific Gravity, Pneumatics, Heat, Light, Electricity, etc., as far as they relate to the Science of Chemistry.

2d. The principles of chemical philosophy, the laws of chemical combinations, and of chemical affinity in general.

3d. A discussion of the elementary bodies, both metallic and non-metallic; the best methods of preparing the various inorganic bodies, their properties and reactions, and the means of detecting their presence.

The principles of the science are abundantly illustrated by experiments.

### Physiology.

PROFESSOR WM. P. CARR, M. D.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of lectures, and these lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail.

Especial pains will be taken to emphasize those truths that have a known practical value.

### Materia Medica and Therapeutics.

PROFESSOR D. W. PRENTISS, A. M., M. D.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

### Anatomy.

PROFESSOR D. KERFOOT SHUTE, A. B., M. D.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

Drs. ISAAC W. BREWER and JAMES R. CHURCH, Prosectors to the Chair of Anatomy, will prepare the subject for the Lecturer.

Dr. STERLING RUFFIN, Demonstrator of Anatomy, and his Assistants, Drs. YOUNG, VAN RENSSELAER, GOODALL, MACKALL, WELLINGTON, PHILLIPS, and RICHARDS, give their personal attention to the students in the dissecting-room.

### Practical Anatomy.

The Dissecting-Room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the Immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present *at stated hours* to give his personal attention to the students and properly instruct his classes in their dissections.

### Clinical Operations.

One evening in each week a member of the Corps of Clinical Operators will lecture upon some subject of general interest in Dentistry, and upon the following Saturday, whenever admissible, will give in the Infirmary a practical demonstration of the subject mentioned.

Special attention is called to the fact that the members of the Clinical Corps take an *active* part in the College instruction, each member giving several Lectures on special subjects during the Winter Course, besides holding Clinics at the Infirmary.

### Requirements for Matriculation and Graduation.

1. *Matriculants* will be required to show, either by examination or by the exhibit of a diploma or certificate from some reputable literary institution, that they have received a good English education.

2. *Candidates for Graduation* must have attended three full Courses of Lectures, each of SEVEN months' duration, and three courses of Clinical instruction in this institution during the regular winter term and in separate years.

*Graduates* from *foreign* Medical Schools will have the same privileges as are accorded second-year students in this College, with the additional provision that they will be given a re-examination on the four primary branches on beginning said second year. Should this examination be satisfactory, no further study of the primary branches will be required; but should the examination not be satisfactory the applicant must study all branches, under the same conditions as defined for second-year students of this College.

Students, however, who have attended *one* full course in some reputable Dental or Medical College will be admitted with the same privileges and be subject to the same requirements as are prescribed for our own second-year students.

Students who have passed the primary examination in some *other* dental college must be re-examined (after paying the examination fee of $20) on entering *this* School. Should said examination not be satisfactory the student must then pay for his lecture tickets on the primary branches and be re-examined in the spring.

Graduates in Medicine from reputable Medical Schools in the United States and Medical students who have passed their examination on the four primary branches of Anatomy, Chemistry, Physiology, and Materia Medica in any of said Medical Schools need not be re-examined on these primary branches on entering this College.

Before becoming eligible for graduation they must take two full courses upon Operative and Prosthetic Dentistry and follow the requirements prescribed for our second-year students.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary* and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall be afterwards deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

### Faculty Prize.

A prize will be given by the Faculty to the graduate passing the best examination in *all* branches and having the best Infirmary record. At the last commencement the prize was awarded to CHARLES W. APPLER, Maryland.

### Fees, Regulations, etc.

| | |
|---|---|
| Matriculation (payable once only) | $5 00 |
| Demonstrator of Anatomy | 10 00 |
| Tuition Fee* (each year) | 75 00 |
| Examination Fee (not returnable, but payable once only for all Branches) | 30 00 |
| Laboratory Instruction (each Branch) | 5 00 |

Graduates of other recognized Dental Colleges will be admitted to the Lectures and to Infirmary Practice on paying the matriculation fee and fifty dollars, or they may be admitted to the Infirmary Practice *only* on payment of the matriculation fee and twenty dollars.

Students who have complied with the requirements for matriculation may be admitted to the Infirmary Practice on payment of the matriculation fee and twenty dollars; said sum of twenty-five dollars will be afterwards credited to them as part payment of Lecture fees, provided they

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This applies only to those who matriculate after April, 1893.

enter the lecture classes at the beginning of the term in October next following the Infirmary Course they may have taken.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, unless *special arrangement be made with the Dean to suit the convenience of the student.*

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

Students may matriculate at any time during the nine months' Infirmary Course, and thus begin *Infirmary* Practice at once, on condition that they pay $25, which amount will be credited to them as part payment of their regular fees.

*Graduates* of this School may be admitted as third-year students in the Medical Department, after passing the *medical* examination in Anatomy, Physiology, Chemistry, Materia Medica, and Therapeutics. After two years' additional study on Surgery, Practice, and Obstetrics they will be admitted to the final examination for the Medical degree.

*Candidates* for graduation in the Dental School who desire to obtain a medical degree thereafter may be admitted to the *medical* examination on the four primary branches at the termination of their second dental course, *provided* they give written notice to the Dean of their intention so to do *one month* before the time of the March examinations, and provided also that they have complied with the requirements of the Medical Department as regards dissection and study of Histology.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union. Students requiring further information are requested to communicate with the Dean of the Faculty.

A. F. A. KING, M. D., DEAN,
*1315 Massachusetts Avenue, N. W., Washington, D. C.*

Telephone call, 885.

### Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the dental student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature.

The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these for study or reference on any week day from 9 to 3 o'clock.

Before becoming eligible for graduation they must take two full courses upon Operative and Prosthetic Dentistry and follow the requirements prescribed for our second-year students.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary* and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall be afterwards deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

### Faculty Prize.

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### Fees, Regulations, etc.

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|---|---|
| Matriculation (payable once only) | $5 00 |
| Demonstrator of Anatomy | 10 00 |
| Tuition Fee* (each year) | 75 00 |
| Examination Fee (not returnable, but payable once only for all Branches) | 30 00 |
| Laboratory Instruction (each Branch) | 5 00 |

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Students who have complied with the requirements for matriculation may be admitted to the Infirmary Practice on payment of the matriculation fee and twenty dollars; said sum of twenty-five dollars will be afterwards credited to them as part payment of Lecture fees, provided they

*This applies only to those who matriculate after April, 1893.

enter the lecture classes at the beginning of the term in October next following the Infirmary Course they may have taken.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, unless *special arrangement be made with the Dean to suit the convenience of the student.*

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

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A. F. A. KING, M. D., DEAN,
*1315 Massachusetts Avenue, N. W., Washington, D. C.*

Telephone call, 885.

### Libraries, Army Medical Museum, etc.

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The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these for study or reference on any week day from 9 to 3 o'clock.

The Army Medical Museum, situated on B street, corner Seventh street S. W., is also open for daily inspection, with its unrivalled collection of pathological specimens illustrating the results of disease in every form. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe the effect of civilization and race admixture upon the dental organs.

Apart from these considerations, students from a distance have the opportunity of spending the winter profitably at the seat of the National Government during the session of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and of special interest to the medical and dental student there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the Grounds of the Agricultural Department, where the student of botany may find a rare collection of medical plates, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of every conceivable form of dental instruments may be daily inspected, thus affording to the student an invaluable opportunity for studying the mechanical contrivances used in dental practice that is not to be obtained in any other city.

### Text Books and Works of Reference.

ANATOMY.—*Wilson's Anatomy*,* Quain's Anatomy, Holden's Manual of Dissection.

PHYSIOLOGY.—*Yeo's* or Flint's Physiology, Foster and Langley's Practical Physiology, Rutherford's Practical Histology.

CHEMISTRY.—*Mitchell's Dental Chemistry*, Barker's or Fowne's Chemistry.

MATERIA MEDICA.—*H. C. Wood's Therapeutics*, National Dispensatory, Edes' Therapeutics.

* The works first named and in *italics* are preferred.

PROSTHETIC DENTISTRY.—*Richardson's Mechanical Dentistry*, Essig's Dental Metallurgy.

OPERATIVE DENTISTRY.—*Harris' Principles of Practice*, Tomes' Dental Anatomy and Surgery, Taft's Operative Dentistry, Garretson's Oral Surgery, American System of Dentistry—Litch; Gould's Medical Dictionary.

**Students of Dentistry.**

| Name. | Residence. |
|---|---|
| Frank A. Austin, | District of Columbia. |
| Richard V. Barry, | District of Columbia. |
| Chester H. Beatty, | District of Columbia. |
| Emmett M. Carter, | District of Columbia. |
| Joseph Cohen, | Texas. |
| Edward F. Concklin, | District of Columbia. |
| Eppa H. Coumbe, | District of Columbia. |
| Henry A. Dunn, | District of Columbia. |
| Eugene P. Frazer, | Georgia. |
| John H. Galloway. | Iowa. |
| Alexander J. Gibson, | Alabama. |
| William S. Gustin, | Ohio. |
| Robert E. L. Hackney, | Virginia. |
| Wilmer S. Hall, | Alabama. |
| Fessenden F. Hicks, | Maryland. |
| William Hislop, | Canada. |
| Hubert L. King, | District of Columbia. |
| Henry Knowles, | Georgia. |
| Eugene L. Le Merle, | District of Columbia. |
| Charles H. L. Lemon, | District of Columbia. |
| Walter A. Low, | Virginia. |
| Samuel C. Luckett, | Texas. |
| William A. Lyon, | Kansas. |
| Herbert MacNamee, | New York. |
| Harry B. Moore, | District of Columbia. |
| David A. Morton, | New Jersey. |
| Wesley C. Orr, | New York. |
| Frederick W. Parker, | New York. |
| Harry Parsons, | New York. |
| Warren Parsons, | California. |
| William K. Petty, | District of Columbia. |
| Arthur L. Russell, | Texas. |
| T. Guy Songster, | District of Columbia. |

| Name. | Residence. |
|---|---|
| James Beverly Stewart, | Virginia. |
| Charles V. Stiles, | District of Columbia. |
| James D. L. Tench, | Florida. |
| Pearce Thompson, | Kentucky. |
| Wines E. Thornton, | Vermont. |
| William H. Trail, | Maryland. |
| Ernest Varela, | California. |
| Israel G. Warfield, | Maryland. |
| James L. Whiteside, | Maryland. |
| Howard A. Wiltberger, | Pennsylvania. |
| Elmer F. Yount, | District of Columbia. |
| Total . . . . . | 44 |

# THE COLUMBIAN COLLEGE.

**The Faculty.**

JAMES C. WELLING, LL.D., PRESIDENT,
Professor of Political and Historical Philosophy.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of the Greek Language and Literature.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of the English Language and Literature, and of Anglo-Saxon.

ANDREW P. MONTAGUE, A. M., PH. D.,
Professor of the Latin Language and Literature.

J. HOWARD GORE, B. S., PH. D.,
Professor of Mathematics, and of the German Language and Literature.

HOWARD L. HODGKINS, A. M., PH. D.,
Professor of Physics, and Adjunct Professor of Mathematics.

LEE D. LODGE, A. M., PH. D.,
Professor of the French Language and Literature.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Intellectual and Moral Philosophy.

CHARLES E. MUNROE, S. B.,
Professor of Chemistry.

H. CARRINGTON BOLTON, PH. D.,
Non-resident Lecturer on the History of Chemistry.

J. S. LEMON, PH. D.,
Lecturer on Physiological Psychology.

CYRUS ADLER, PH. D.,
Lecturer on Oriental History.

ANTONIO M. SOTELDO, LL. D.,
Professor of Spanish.

E. HILTON JACKSON, A. B., LL. M.,
Assistant in Latin.

H. R. PYNE, A. B.,
Assistant in Greek.

H. GRANT HODGKINS, A. B.,
Registrar and Librarian.

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The College is open to students of both sexes.

The regular course of instruction is comprised in ten schools, as follows:

I. SCHOOL OF ENGLISH: including English Philology, English Literature, Rhetoric, Logic, Elocution, General History, and Anglo-Saxon.

II. SCHOOL OF GREEK: including the Greek Language and Literature and the History of Greece.

III. SCHOOL OF LATIN: including the Latin Language and Literature and the History of Rome.

IV. SCHOOL OF FRENCH: including the French Language and Literature and the History of France.

V. SCHOOL OF SPANISH: including the Spanish Language and Literature and the History of Spain.

VI. SCHOOL OF GERMAN: including the German Language and Literature and the History of Germany.

VII. SCHOOL OF MATHEMATICS: including Pure Mathematics, Mechanics, and Astronomy.

VIII. SCHOOL OF CHEMISTRY: General, Inorganic and Organic Chemistry, Laboratory Practice, Qualitative and Quantitative Analysis.

IX. SCHOOL OF PHYSICS.

X. SCHOOL OF PHILOSOPHY.

### School of English.

PROFESSOR SHUTE.

1. Instruction is given in the fundamental principles of style and invention, mainly in their rhetorical, and incidentally in their logical aspects. Instruction is given in elocution and composition; also in the general outlines of English and American History. Three hours a week.

Text-books: Genung's Rhetoric; Thompson's History of England; Eliot's History of the United States.

2. Instruction is given in the principles of pure and applied logic, and application of these principles is required in analyzing and reconstructing ordinary forms of argumentation in select authors. Instruction is also given as to the origin, development, and present powers of the language; also in the biography, times, and works of the best English writers Three hours a week.

Text-books: Jevons' Logic; Hudson's Shakespeare; Shaw's English Literature; Sweet's Anglo-Saxon Primer and Beowulf.

3. Fowler's Inductive Logic; Hunt's Prose and Prose Writers; American Literature. Four hours a week.

4. Elocution and Essays throughout the Course; Modern History; Criticisms of American Literature. Two hours a week.

A certificate of proficiency is granted on completing Courses 1, 2, and 3; a diploma for Courses 1–4, inclusive.

For Graduate Courses in English, see under head of "Graduate School."

### School of Greek.

PROFESSOR HUNTINGTON.
MR. H. R. PYNE.

In this School instruction is given in the Greek Language and Literature and in Greek History. The following books are used as text-books or for reference: Goodwin's and Hadley's Greek Grammars, Boise's Exercises in Greek Syntax, and Smith's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's or Long's, or Ginn & Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all the classes.

In this School portions of the following authors are studied:

1. Homer; Herodotus. Also, the History of Greece. Three hours a week for two terms.

2. Xenophon (Memorabilia); Lucian. Three hours a week for one term.

3. Isocrates. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week for two terms.

5. Plato and Thucydides, or Æschylus. One hour a week for two terms.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1 to 5, inclusive.

For Graduate Courses in Greek, see under head of "Graduate School."

### School of Latin.

PROFESSOR MONTAGUE.
MR. JACKSON.

In this School instruction is given in the Latin Language and Literature and in Roman History. The School offers nine courses, of which 1 and 2 are required for a certificate, and 1, 2, 3, 4, and 5 (or 6) for a diploma in Latin. Courses 7, 8, and 9 constitute the Graduate Department, in which those parts of the works of the authors named which are not usually read by undergraduates are assigned. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required.

Grammars: Harkness's (text-book), Allen and Greenough's, Peters's and Madvig's. Lexicons: Harper's, White's English-Latin. Roman Literature: Cruttwell's, Wilkins's. Classical Atlas: Ginn & Co.'s or Kiepert's. Histories: Merivale's, Allen's, Myers's. In all the courses selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

Courses: 1. Ovid, Livy, Horace (*Odes*), the History of Rome; three times a week for nine months. 2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Plautus (*Captivi*); three times a week for four and a half months. 3. Cicero (*Letters*), Tacitus (*Germania*), Terence (*Andria*), Roman Antiquities; three hours a week for four and a half months. 4. Tacitus (*Agricola* and *Annals I.*), Pliny (*Letters*), Seneca, Juvenal, Critical Study of the History of Rome; three hours a week for nine months. 5. Quintilian; one hour a week for six months. 6. Cicero (*De Finibus*), Social Life of the Romans; one hour a week for five months.

For Graduate Courses in Latin, see under head of "Graduate School."

### School of French.

PROFESSOR LODGE.

1. The class is drilled in French pronunciation; grammar; progressive exercises in composition; conversation.

Works read: Histoire d'un Conscrit; Le Voyage de M. Perrichon; Un Mariage d'Amour; Edgren's French Grammar is used. Three hours a week.

2. French syntax critically studied; Dictation Exercises; Short Original Essays; French Conversation.

Works read: Petite Histoire du Peuple Français, Lacombe; Le Cid; Athalie; L'Avare; Colomba; Parallel readings in Corinne; Sauveur's Grammaire Française. Three hours a week.

3. French Idioms studied; Lectures on the development of the tongue; Comparative Philology.

Works read: Bug-Jargal; Le Bourgeois Gentilhomme; Horace; Cinna; Le Barbier de Séville; La Poudre aux Yeux; La Bataille de Dames; Parallel reading in nineteenth century authors. Three hours a week.

4. Philological studies based on original texts; thorough investigation in the origin of the laws of French syntax; La Chanson de Roland; Ruy Blas, Hernani, and Crane's Romantisme Français are also read. Two hours a week.

5. Lectures on the history of French Literature; systematic study by the class of one or more epochs; comparative literature. The authors read vary with the epochs chosen for study. Two hours a week.

A certificate of proficiency is granted on completing courses 1 and 2; a diploma for courses 1, 2, 3, 4 or 1, 2, 3, 5.

For Graduate Courses in French Philosophy, see under head of "Graduate School."

During the first term opportunity is given for *Seminary* work of a strictly literary nature. One of the makers of French Literature is studied in his genesis, his essential characteristics, and his influence upon later writers in France and in other lands.

### School of Spanish.

PROFESSOR A. M. SOTELDO, LL. D.

Thorough instruction will be given in the Castilian Language, with especial regard to a true and correct pronunciation and to the acquisition of the language in the shortest time possible.

Soteldo's "Spanish Grammar" and "Gramática Inglesa para les Españoles," composed especially to promote the reciprocal studies of the

two predominant languages of the three Americas, will be used as text-books.

The successful completion of a two-years' course of study will entitle the student to a certificate; a four-years' course to a diploma.

Class days: Mondays, Wednesdays, and Fridays, at 4.30 p. m.

### School of German.

PROFESSOR GORE.

Instruction in this department has, as its primary object, a thorough knowledge of the Grammar and familiarity with the literature, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German Grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

Text-books: Sheldon's and Joynes-Meissner's German Grammars.

1. Readings from Bilderbuch ohne Bilder, Andersen; Das Kalte Herz, Hauff. Two hours a week.

2. Readings from Der Neffe als Onkel, Schiller; Höher als die Kirche, and selected stories. Two hours a week.

3. Readings from Lessing, Auerbach, Heyse, and Freytag. Two hours a week.

4. Elective seminary studies; Gore's German Science Reader, and extensive reading at sight. Two hours a week.

A certificate is granted on the completion of the four courses.

### School of Mathematics.

PROFESSORS GORE AND HODGKINS.

In this School instruction is offered in seven courses.

1. Solid Geometry; Wells' Geometry. Four hours a week for one term.

2. Algebra; Bowser's and Wells' Algebras. Four hours a week for one term.

3. Plane and Spherical Trigonometry, Wells'. Three hours a week for one term.

4. Analytic Geometry, Wentworth. Three hours a week for one term.

5. Differential and Integral Calculus, Taylor. Three hours a week.

6. Mechanics, Peck; Least Squares, Merriman. Two hours a week.

7. Astronomy, Young's General Astronomy. Two hours a week.

A certificate of proficiency is granted on completing courses 1, 2, 3; a diploma for courses 1, 2, 3, 4, 5, 7, or 1 to 6, inclusive.

For Graduate Courses in Mathematics, see under head of "Graduate School."

## School of Chemistry.

PROFESSOR MUNROE; PROFESSOR BOLTON.

1. For students who have taken mathematics 1 and 2 and Physics 1. General Inorganic and Organic Chemistry. Three hours per week for one year.

Text-books: Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. For students who have taken course 1, Laboratory Practice. Three periods per week for one year.

Text-book: Cooke's Laboratory Practice.

3. For students who have shown marked aptitude in course 2, Qualitative and Quantitative Analysis and Chemical Preparations.

Text-books: Clowe's Qualitative Analysis; Thorpe's Quantitative Chemical Analysis.

A certificate of proficiency is granted on completing course 1, and a diploma for courses 1 and 2.

For Graduate Courses in Chemistry, see under head of "Graduate School."

H. CARRINGTON BOLTON, Ph. D.,

Non-resident Lecturer on the History of Chemistry.

Professor H. CARRINGTON BOLTON, Ph. D., gives from time to time a course of lectures on the History of Chemistry. The course for the last year comprised nine lectures on the topics indicated:

I, Chemical Arts in Bible Times; II, Theoretical Views in Ancient Times; III, The Folly and the Wisdom of Alchemy; IV, The Growth and Decline of Alchemy; V, Paracelsus and the Iatro-chemists; VI, The Era of Phlogiston; VII, The Development of Pneumatic Chemistry; VIII, Lavoisier and the Reformation of Chemistry; IX, The Era of Quantitative Chemistry.

The course was illustrated by diagrams and 250 lantern-slides representing portraits, apparatus, title pages of rare books, interiors of ancient and modern laboratories, etc. The subject was treated from the standpoint of philosophy and of practical chemistry, and the treatment was interspersed with biographies, personal narratives, the description of processes, and with references to contemporary progress in physical science and secular history.

The next course will be philosophical as well as historical, and will revolve around the burning points of chemical research at the present day.

These Lectures are open to all students of the University, to members of the Chemical Society of Washington, and to invited guests.

### School of Physics.

PROFESSOR HODGKINS.

During the session of 1894–'95 three courses will be given, of which course 1 will be required for a certificate and courses 1, 2, and 3 for a diploma.

1. A lecture course on general physics, embracing the fundamental principles of mechanics, sound, heat, light, and electricity. The lectures will be illustrated by experiments and will be based on Avery's Elements of Natural Philosophy, Barker's Physics (Advanced Course), and Ganot's Physics.

For admission to this class courses 1 and 2 in Mathematics will be required and the simultaneous study of course 3 in Mathematics will be necessary, A knowledge of the elements of Physics as contained in Avery's First Principles of Natural Philosophy or in Gage's Introduction to Physical Science is desirable, but will not be insisted on during the next session.

2. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course 1. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports.

For admission to this class, courses 1, 2, and 3 in Mathematics and course 1 in Physics will be required.

3. A lecture and laboratory course in Magnetism and Electricity, following, with some modifications, the course given in Poyser's Magnetism and Electricity (Advanced Course).

For admission to this class courses 1, 2, and 3 in Mathematics and courses 1 and 2 in Physics will be required. In exceptional cases students who have not completed course 2 in Physics may be admitted to this class.

### School of Philosophy.

PROFESSOR STERRETT.

The special studies in this School as directed by Professor STERRETT are pursued in the upper two classes. The Junior Class spends the first half of the year in the study of Psychology, the aim being to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will, as organic processes of the man developing into conscious universal relations.

In the absense of more formal instruction in Experimental Psychology, a course of lectures on Psycho-physics will be given this year by Prof. J. S. LEMON, Ph. D., of the Clark University.

This class spends the last half of the year on the History of Philosophy. The course this year is on Modern Philosophy, from Descartes to Herbert Spencer and E. von Hartmann. It is given in a course of lectures—concurrent readings and theses being required from the students.

The Senior Class spends the first half of the year (5 hours a week) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Hobbes, Kant, Mill, and Spencer, and to hand in well-prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. Green's *Prolegomena to Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

The latter part of the year is given to the study of *Political Economy*, chiefly on historical and ethical lines. Here E. de Laveleye and Roscher are used as text-books.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy, two hours a week in the afternoon.

For Graduate Courses in Philosophy, see under head of "Graduate School."

### School of Philosophy.

PRESIDENT WELLING AND DOCTOR ADLER.

The President of the University is charged with the work of instruction in Political and Historical Philosophy. After a course of lectures on the origin and historical significance of the Constitutional Law of the United States, he places Fiske's Civil Government in the hands of the student for careful study. After a course of lectures on the genetic ideas of International Law and its place in juristic evolution, he assigns Gallaudet's Manual for study.

The President also delivers a course of lectures on the Science of History, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progress measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies in primitive society, and are followed by a rapid survey of the "civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America.

CYRUS ADLER, Ph. D.,
Of the Smithsonian Institution.

Dr. CYRUS ADLER delivers a course of lectures on the Assyro-Babylonian Empire, comprising: I. A Sketch of its History (four lectures). II. Excavation of the Assyro-Babylonian Monuments (two lectures). III. Decipherment of the Cuneiform Inscriptions (one lecture). IV. The Cuneiform Inscriptions and the Old Testament (two lectures). V. Art and Architecture of the Assyro-Babylonians (one lecture). VI. Their Literature (two lectures). VII. Their jurisprudence (one lecture).

These lectures are open to all students of the University and to invited guests.

For Graduate Courses in Political and Historical Philosophy, see under head of "Graduate School."

**Time and Terms of Admission.**

The regular examinations for admission to the College are held on the Friday and Saturday immediately preceding the opening of the session. Every applicant is required to deliver to the President testimonials of good moral character, and, if coming from another college, must present a certificate of honorable dismission.

Candidates for admission to any class of the College must, unless they are graduates of the Preparatory School or of the High Schools of Washington, sustain an examination in the following elementary studies: Spelling, English Grammar, Geography, Elements of History, and Arithmetic.

Candidates for admission to any School will be examined in all the studies presupposed by the curriculum of that School.

Candidates for admission to the School of English will be admitted to its lowest class on passing a satisfactory examination on the preliminary studies above indicated.

Candidates for admission to the School of Greek in its lowest class will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek Reader or Xenophon's Anabasis (first four books), first three books of Homer's Iliad, Jones' Greek Prose Composition, and Myers's or Schmitz's History of Greece.

Candidates for admission to the School of Latin will be examined in Harkness's Latin Grammar, four books of Cæsar's Commentaries, six of Cicero's Orations, six books of the Æneid of Virgil, Sallust's Conspiracy of Catiline (in part), Latin Composition, and Allen's, Myers's, or Pennell's History of Rome.

Candidates for admission to the School of French will be examined in Edgren's French Grammar and in the first hundred pages of Super's French Reader.

Candidates for admission to the School of Mathematics in its lowest class will be examined in Algebra (through Quadratic Equations) and in the first four books of Geometry.

Candidates for admission to the School of Physics will be required to pass the examination for admission to the Sophomore Class in Mathematics.

Real equivalents in quality and amount will be received in place of the books or parts of the books prescribed as above for study preparatory to admission into the Schools of Greek, Latin, and Mathematics.

Candidates for admission to any advanced class in any School will be examined in all the previous studies of the class which they propose to enter.

Students wishing to pursue a select course in certain Schools will be admitted to the classes for which they may be found qualified; but an examination in preliminary and indispensable studies will be held in all cases, and every student pursuing such a course, if under the age of twenty-one years, is required to embrace in his selections not less than three distinct schools, with at least twelve recitations or lectures per week. The choice of studies embraced in a Select Course must be made immediately upon the commencement of a term, and no student will have leave to make a new choice of studies during any single term.

### Degrees.

The degree of Bachelor of Arts is conferred on students who obtain diplomas in four Schools and certificates in four other Schools; provided the diplomas include those from the Schools of English, Greek or Latin, and Philosophy, and the certificates include those from the Schools of Latin or Greek, French or German, and Mathematics.

The degree of Bachelor of Science is conferred on students who obtain diplomas in four Schools and certificates in four other Schools; provided the diplomas be those from the Schools of Mathematics, Philosophy, French or German, and Chemistry or Physics, and the certificates include those from the Schools of English and Physics or Chemistry.

A diploma is the equivalent of two certificates, and may be so counted in enumerating the certificates required for a degree.

Courses of Graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this catalogue.

### Examination.

At the end of each term an examination of all the classes in all the Schools is publicly held in all the studies of that term.

The results of each Term Examination are combined with those of the daily recitations and attendance of the student during the term, in order to ascertain his academic standing at the end of that term.

Each recitation and each examination are graded on a scale of merit from 0 to 100, and a failure to reach the final average grade of 75 in any study is regarded as a failure in that study.

At the close of each College year all the classes in all the Schools are publicly examined in review of all the studies of that year.

The results of the Annual Examinations are combined with those of the Term Examinations, in order to ascertain the student's academic standing at the end of each year.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and, in default of doing so, shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for the degree of Bachelor of Arts are concluded six weeks anterior to the date of the Annual Commencement, that time may be given to Professors for the inspection of written examination papers, and to students for the preparation of parts to be performed on Commencement Day by the successful candidates for the degrees of Bachelor and Master of Arts, to whom public parts on that day may be assigned by the Faculty.

Examinations for prizes and for the degree of Master of Arts are concluded five weeks before the end of each scholastic year.

### Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as the reward of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, and are annually awarded to the two successful competitors, in a public contest held on Commencement Day. These prizes are awarded by a committee whom the Faculty selects for this purpose, and are publicly delivered at the close of the contest.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and

Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar and writer in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the best two scholars in the Pure and Applied Mathematics.

Any student entitled to a diploma in any School will be allowed to contend for the prize given in that department, provided he shall have pursued the required number of studies during the year, and shall have passed satisfactory examinations in the same.

### Prizes in 1892-'93.

Staughton Prize, F. Estelle Throckmorton, District of Columbia; Henry R. Pyne, Maine.

Elton Prize, Henry R. Pyne, Maine; F. Estelle Throckmorton, District of Columbia.

Ruggles Prize, J. Herbert Ford, District of Columbia.

Davis Prize, *First*—Mary Owen Dean, District of Columbia.

Davis Prize, *Second*—J. Herbert Ford, District of Columbia.

The Enosinian Prize, for Excellence in Debate, was awarded by the Society to J. Herbert Ford, District of Columbia.

The Prize for Parliamentary Law, given by Professor GORE, was awarded to Harry D. Sanders, New York.

### Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the degrees of Bachelor of Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

A Latin Salutatory will be awarded to the graduate in each year whose average standing in all the Schools is the highest, and an English Salutatory to the student who stands second.

The Valedictory is awarded with special regard to the qualifications of the student as a Valedictorian, as well as on the ground of scholarship.

Philosophical, Classical, Scientific, Metaphysical, Ethical, Historical, or Literary Orations may be awarded to students who are eminent respectively in the corresponding Departments.

All the degrees of the College are publicly conferred on Commencement Day.

Diplomas in the several schools and prizes for special excellence in any Department are publicly delivered on the same day.

### Public Worship.

Prayers, accompanied by the reading of the Scriptures, are offered daily in the College Chapel. All students are expected to attend this service.

### Library Hours.

The College Library, to which large additions were made during the last year, is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 6 to 10 p. m., for purposes of study and inquiry, as also for the distribution of books. A reading-room, provided with the leading reviews, periodicals, newspapers, etc., is maintained in connection with the Library for the use of students.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for purposes of research in any special line of studies.

### Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly in its hall for the purpose of improvement in Debate and Composition.

### Lectures.

Courses of Lectures in Literature, Art, and Science (comprising Lectures in English, French, and German) are organized every year by the Faculty. These Lectures are open to all the classes, and to the public on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Lecture Hall of the University, are equally open to all students of the University.

### General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all his studies, including a record of all absences from lectures, recitations, or other public exercises of the College, will be rendered quarterly to parents or guardians.

The daily recitations of the College Classes are brought, as far as practicable, into the early portion of the day. The advantages of an attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

### College Expenses.

| | |
|---|---|
| 1. Admission Fee (paid but once, on entrance) | $10 00 |
| 2. Tuition for the year in three or more Schools | 90 00 |
| 3. Tuition for the year in two Schools | 70 00 |
| 4. Tuition for the year in one School | 50 00 |
| 5. Laboratory work in Chemistry, 2 and 3 (material) each | 10 00 |

These charges cover all expenses, including public fuel, servants' wages, etc.

Bills are payable semi-annually, in advance.

The College provides no commons, but board may be procured in the city at such reasonable rates that the annual expenses of students need not exceed the sum of three hundred dollars. Eligible boarding-houses are indicated on the bulletin boards of the University.

### Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Preparatory School and four in the College, is annually conferred on the best scholar in the public High School. Students on this foundation pay semi-annually in advance a fee of eight dollars for public fuel, servants' wages, etc.

A recent ordinance of the corporation increases the number of the free scholarships to six, to be distributed annually among the several public High Schools of Washington in proportion to their respective numbers in attendance.

## STUDENTS IN THE COLUMBIAN COLLEGE.

### Abbreviations.

C.—Chemistry.
E.—English.
F.—French.
Ger.—German.
G.—Greek.
L.—Latin.
M.—Mathematics.
Phil.—Philosophy.
Phys.—Physics.
S.—Spanish.

### Candidates for Degrees.

| Name. | Residence. |
|---|---|
| Mabel W. Baker, | District of Columbia. |
| Frank L. Biscoe, | District of Columbia. |
| Edmund K. Broadus, | District of Columbia. |
| Mary K. Chapin, | District of Columbia. |
| Clara A. Crew, | Ohio. |
| George R. Davis, | Maine. |
| Harry H. Donnally, | District of Columbia. |
| Juliett Maud Duvall, | District of Columbia. |
| George L. Edmunds, | District of Columbia. |
| Mary Virginia Fenwick, | District of Columbia. |
| Harry S. Greene, | District of Columbia. |
| Bruner Greenup, | Kentucky. |
| William W. Grier, | District of Columbia. |
| George P. Henderson, | Maryland. |
| H. May Johnson, | District of Columbia. |
| Robert H. King, | New York. |
| Clifton Laughlin, | Virginia. |
| Carrie E. Logan, | New York. |
| Hester E. McNelly, | District of Columbia. |
| Addie E. Maguire, | District of Columbia. |
| Russell B. Main, | District of Columbia. |
| Harry L. Mitchell, | District of Columbia. |
| Henrietta C. Morrison. | District of Columbia. |
| C. Le Roy Parker, | New York. |
| Edward A. Playter, | District of Columbia. |
| D. Webster Prentiss, Jr., | District of Columbia. |
| Elliott C. Prentiss, | District of Columbia. |
| Spencer B. Prentiss, | District of Columbia. |
| J. McBride Sterrett, Jr., | District of Columbia. |
| Worthington Talbott, | Maryland. |

| Name. | Residence. |
|---|---|
| Clara M. Upton, | District of Columbia. |
| Arthur L. Wilson, | West Virginia. |
| Elinor Wilson, | District of Columbia. |
| William G. Woodford, | District of Columbia. |

Candidates for Degrees, . . . 34.

**Special Students.**

| | |
|---|---|
| Orville E. B. Bailey, D. C., | C., Phil. |
| Charles M. Beall, D. C., | E., F., Ger., G., L., M. |
| Gilbert Bloss, D. C., | C., F., G., Phys. |
| H. P. Boyle, D. C., | C., E., F., M. |
| S. Duncan Bradley, D. C., | G., Phys., M. |
| Harry S. Brown, D. C., | E., F., Ger., L., M. |
| Bertha Cooper, Ind., | Ger., L., M. |
| Howard G. England, Md., | E., G., L., Phil. |
| Horace C. Foulke, D. C., | L., M. |
| Sarah D. Gadsden, D. C., | Ger. |
| Clarence I. Gessford, D. C., | E., G. |
| Mortimer B. Hall, Md., | C., E., F., Ger., M., Phys. |
| Henry A. Hayward, Minn., | S. |
| Charles G. Hoffman, D. C., | E., F., Ger. |
| N. Monroe Hopkins, D. C., | C., Phys. |
| Mary L. Hughes, D. C., | C., E., Ger., M. |
| Edward D. Johnson, Md., | E., F., Ger., G., Phil. |
| B. A., Maryland Agricultural College, 1892. | |
| Frederick C. Jones, D. C., | C., E., F., M., Phys. |
| Cora A. Manning, Canada, | E., F., Ger., M. |
| Salvador D. Moore, D. C., | E., G., L. |
| Jessie S. Nelson, Mont., | E., Ger., M. |
| Florence E. Plant, D. C., | C., Ger., M. |
| Wright Rives, Md., | C., F., L., M. |
| M. Louise Ritchie, D. C., | C., E., F., Ger. |
| Syrer Vinje, Minn., | M. |
| Thomas J. Weadock, Mich., | E., F., M. |
| Mary K. West, Ky., | E., Phil. |
| B. S., Garrard College, 1893. | |
| A. G. Wheeler, D. C., | S. |
| Charles F. Wilson, D. C., | L. M. |

Special Students, . . . . . 29.

# THE CORCORAN SCIENTIFIC SCHOOL.

**The Faculty.**

JAMES C. WELLING, LL. D.,
President.

CHARLES E. MUNROE, S. B.,
Professor of Chemistry and Dean of the Faculty.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of the English Language and Literature.

ANDREW P. MONTAGUE, A. M., PH. D.,
Professor of Latin.

J. HOWARD GORE, B. S., PH. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, A. M., PH. D.,
Professor of Mathematics.

LEE D. LODGE, A. M., PH. D.,
Professor of French and Philosophy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

F. H. KNOWLTON, M. S.,
Professor of Botany.

THEODORE N. GILL, M. D., PH. D.,
Professor of Zoölogy.

OTIS T. MASON, A. M., PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, PH. D., LL. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of the German Language.

HARRY KING, LL. B.,
Professor of Drawing.

EXUM PERCY LEWIS, B. S.,
Assistant Professor of Physics.

A. W. GREELY, BRIG. GEN. U. S. A.,
Professor of Geography.

JOSIAH PIERCE, JR., M. A.,
Professor of Drawing and Applied Geometry.

H. CARRINGTON BOLTON, A. M., PH. D.,
Lecturer on History of Chemistry.

A. F. CRAVEN, A. B., LL. B., PH. D.,
Professor of Economics.

LOUIS AMATEIS,
Professor of Architectural Drawing.

EDWARD FARQUHAR,
Assistant Professor of English.

EVERETT HAYDEN, U. S. N.,
Assistant Professor of Geography.

G. E. CURTIS, M. A.,
Assistant in Meteorology.

T. M. CHATARD, S. B., PH. D.,
Lecturer on Chemical Engineering.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

FRANK L. AVERILL, C. E.,
Instructor in Engineering Field-work.

FELIX FREYHOLD, C. E.,
Assistant in Iron and Steel Construction.

HENRY R. PYNE, A. B.,
Assistant in Latin.

M. M. RAMSEY,
Instructor in Spanish and Italian.

HERBERT L. RICE, B. S.,
Instructor in Astronomy.

E. L. THURSTON, C. E.,
Assistant in Drawing.

GEORGE V. CHANDLER, M. S.,
Assistant in Mineralogy and Geology.

J. S. JOHNSON, B. S.,
Assistant in Applied Mathematics.

EDWIN H. FOWLER, B. S.,
Assistant in Topographic Drawing.

PETER FIREMAN, PH. D.,
Assistant in Quantitative Analysis.

E. A. MUIR,
Assistant in Machine Drawing.

J. E. BLOMÉN, PH. D.
Instructor in Physics.

J. S. MILLS, A. M.
Assistant in Qualitative Analysis.

E. H. MEYER,
Assistant in Free-hand Drawing.

C. L. BRANDENBURG, LL. M.,
Assistant in Commercial Law.

P. W. ROBERTSON,
Assistant in General Statistics.

J. M. CASANOWICZ, PH. D.,
Lecturer on the History of Statistics.

W. P. HAY, A. M.,
Assistant in Zoölogy.

WORTHINGTON C. FORD,
Lecturer on Statistics.

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The School of Science established by the Trustees and Overseers of the Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin on the second of October and are held in the New University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take Special Courses in any of the Departments.

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## COURSES OF STUDY LEADING TO THE DEGREE OF B. S.

### FIRST YEAR.*

(Common to all Courses.)

| | |
|---|---|
| Chemistry, 1, 6.† | English, 1, 2. |
| Fine Arts, 1. | French, 1. |
| Drawing, 1. | Mathematics, 1, 2. |

### COURSE I—GENERAL.

SECOND YEAR.

| | |
|---|---|
| Chemistry, 10, 6. | German, 1. |
| Engineering, 1. | Mathematics, 3, 4. |
| English, 3, 4. | Mineralogy, 1. |
| French, 2. | Physics, 1. |
| Applied Mathematics, 5. | |

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*Students in Courses II and X will take Course 2 in Fine Arts in addition to the above.

†The numbers following the subjects for study refer to the special topics in the various Departments of the Corcoran Scientific School.

THIRD YEAR.

Chemistry, 6.
English, 1, 5, 6, 7.
French, 3.
Geology, 1 A.
Mineralogy, 2 A.
German, 2.
Mathematics. 5.
Physics, 7.
Philosophy, 1.

FOURTH YEAR.

The student will pursue a course of study elected by him and which is accepted by the Faculty. Students must submit their proposed Course in writing to the Dean before May 30 of the third year of their Course.

## COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.
Drawing, 2.
Engineering, 1, 15, and Field-work.
German, 1.
Mathematics, 3, 4.
Mechanical Engineering, 3.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9, and Constructive Exercises.
Astronomy, 2.
Geology, 1 A.
German, 2.
Engineering, 3, 4, 5, 13, 14, Constructive Exercises and Field-work.
Mathematics, 5.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.
Engineering, 7, 9, 10, 13, 14.
Chemistry, 6.
Geodesy, 1 (1 term).
Mathematics, 6, 7.
Physics, 4, 6.

## COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10, 6.
Engineering, 2.
German, 1.
Mathematics, 3, 4.
Mechanical Engineering, 2, 3.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9.
Geology, 1 A.
Mathematics, 5.
Mechanical Engineering, 4.
Physics, 2, 3, 7, 9.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.
Engineering, 12, 18.
Mathematics, 6, 7.
Physics, 4, 5, 6, 8.

## COURSE IV—IN CHEMISTRY (A).

SECOND YEAR.

Chemistry, 2, 6.
Geology, 1 A.
German, 1.
Physics, 1.
Mineralogy, 1.

THIRD YEAR.

Chemistry, 3, 6.
German, 2.
Geology, 2.

FOURTH YEAR.

Chemistry, 4, 5, 6, 7.
German, 3.

## COURSE V—IN CHEMISTRY (B).

SECOND YEAR.

Chemistry, 2, 6.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Chemistry, 3, 6.
German, 2.
Mathematics, 5.
Physics, 2, 3.

FOURTH YEAR.

Chemistry, 4, 6, 7.
German, 3.
Mathematics, 6.
Physics, 6.

## COURSE VI—IN METEOROLOGY

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10, 6.
Engineering, 1.
Geology, 1 A.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6.
Astronomy, 1.
Geology, 2.
German, 2.
Mathematics, 5.
Meteorology, 1.
Physics, 5, 6, 7.

FOURTH YEAR.

Applied Mathematics, 8.
Astronomy, 2.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2.
Physics, 8.

## COURSE VII—IN GEOGRAPHY.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10.
Drawing, 2.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Geography, 1.
Physics, 1.

THIRD YEAR.

Astronomy, 1.
Engineering, 3, 4, 6.
German, 2.
Geography, 2.
Geology, 1.
Mathematics, 5.
Modelling.
Physics, 2, 5.

FOURTH YEAR.

Applied Mathematics, 7.
Astronomy, 2.
Engineering, 10.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2.
Plate Engraving.
Methods of Reproduction.
Telegraphy and Signaling.

## COURSE VIII—IN GEOLOGY AND MINERALOGY (A).

SECOND YEAR.

Botany, 1.
Chemistry, 10.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Botany, 2.
Chemistry, 2.
Engineering, 3.
Geology, 1.
Mineralogy, 2 B.
Physics, 7.
Zoölogy, 1.

FOURTH YEAR.

Botany, 3.
Chemistry, 3.
Engineering, 6.
Geology, 2.
Meteorology, 2.
Zoölogy, 2.

## COURSE IX—IN GEOLOGY AND MINERALOGY (B).

SECOND YEAR.

Botany, 1.
Chemistry, 10.
Drawing, 2.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Botany, 2.
Chemistry, 2.
Engineering, 3.
Geology, 1.
Geography, 1.
German, 2.
Mineralogy, 2 B.
Physics, 7.
Zoölogy, 1.

FOURTH YEAR.

Botany, 3.
Chemistry, 4, 5.
Engineering, 6.
German, 3.
Geology, 2.
Meteorology, 2.
Zoölogy, 2.

## COURSE X—IN ARCHITECTURE.

SECOND YEAR.

Applied Mathematics, 2, 5.
Architecture, 1.
Engineering, 15, 9, 2.
Fine Arts, 3.
French, 2.
Mathematics, 3, 4.
Mechanical Engineering, 3.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 3, 4, 9, 11.
Architecture, 2, 3, 5, 6.
Business Practice.
Engineering, 16, 17.
Fine Arts, 3.
French, 3, or Italian.
Geology, 1 A.
Law of Contracts.

FOURTH YEAR.

Architecture, 4, 7, 8, 9.

## COURSE XI—IN FINANCE AND ECONOMICS.

SECOND YEAR.

English, 3.
Finance, 1, 6.
French, 2.
Geography, 1.
German, 1.
Physics, 1.
Spanish, 1.

THIRD YEAR.

English, 5, 6.
Finance, 2, 3, 4.
French, 3.
Geography, 2.
German, 1.
Philosophy, 1.
Spanish, 2.

FOURTH YEAR.

Astronomy, 1.
Botany, 1.
Chemistry, 10.
Finance, 5.
German, 3.
Italian, 1,
Mineralogy, 1.
Philosophy, 2.

## COURSE XII—IN LANGUAGE AND LITERATURE.

SECOND YEAR.

| | |
|---|---|
| Finance, 6. | Botany, 1, or Mineralogy, 1. |
| Mathematics, 3. | Physics, 1. |

and any five languages which include English, French, and German may be taken as the subjects in which the student is to do his work for the degree of B. S. In English the year is spent in the study of Logic and the principles of Criticism. Instruction in other languages will include the following features:

(*a.*) Sight translation from the foreign language into English.
(*b.*) Thorough study of grammatical forms.
(*c.*) Critical study of syntax; historic explanation of idioms.
(*d.*) Copious exercises in composition.
(*e.*) Exercises in conversation and dictation.

THIRD YEAR.

| | |
|---|---|
| Astronomy, 1. | Geology, 1. |
| Geography, 2. | Philosophy, 1. |
| | Zoölogy, 1. |

and work in English to consist of elaborate studies in the history of the development of the English language. In other languages the instruction will embrace:

(*a.*) An extended course of reading so selected as to lift into bold relief the development of the great schools of literature which have arisen in each country whose language is studied.
(*b.*) Exercises in composition, conversation, and dictation.
(*c.*) The history of the language; studies in comparative philology.
(*d.*) The history of the people as written by themselves.

FOURTH YEAR.

| | |
|---|---|
| Chemistry, 10, or Physics, 7. | Philosophy, 2, 3. |

The course in English for the year will be a critical study of the history of English literature in its great masterpieces; inductive Rhetoric; and essays, historical, literary, and critical. The instruction in other languages will include:

(*a.*) Reading; writing of essays in the language; conversation.
(*b.*) The study of one of the most important epochs of the literature.
(*c.*) Students are required to write a thesis embodying the results of their study of the works of some great author.
(*d.*) Studies in comparative literature.

## DEPARTMENTS OF INSTRUCTION.

### Department of Anthropology.

DR. MASON, Lecturer.

(See under head of "Graduate School.")

### Department of Applied Mathematics.

(See Department of Engineering.)

### Department of Architecture.

———, Head of Department.
———, Associate Professor of Architecture.
———, Lecturer on Sanitary Engineering.

1. History of Architecture, I, one hour.*
2. History of Architecture, II, one hour.
3. Original Design (third year), daily, in Architects' offices.
4. Original Design (fourth year), daily, in Architects' offices.
5. The Theory of the Planning of Buildings, one hour, one term.
6. Heating and Ventilation, one hour, one term.
7. Sanitary Engineering, for Architects, one hour, one term.
8. History of Ornament, one hour, one term.
9. History of Painting and Sculpture, one hour, one term.

### Department of Astronomy.

PROFESSOR WINLOCK, Head of Department.
MR. RICE, Instructor.

1. General Descriptive Astronomy. Three hours. Young's General Astronomy, with occasional Lectures.

Arrangements have been made for occasional visits to the New U. S. Naval Observatory, so that students may view and study with the aid of the telescope the many celestial objects of both popular *and scientific* interest.

2. Practical Astronomy, one hour.
3. Mathematical and Theoretical Astronomy, two hours.

Theory taught mainly by Lectures, supplemented by the Solution of Problems and Practical Computations.

* Unless otherwise stated, hours per week per year.

**Department of Botany.**

PROFESSOR KNOWLTON, Head of Department.

1. Structural and Systematic Botany.

The year will be devoted to general organography and morphology of flowering plants and the higher cryptogams, with brief outline review of the remaining groups. *Field excursions* will be given whenever practicable, and the student will be expected to become familiar with the determination of ordinary flowering plants and vascular cryptogams and to be able to recognize the principal groups at sight. The student will also be instructed as to the proper manner of collecting and preparing plants for the herbarium and directed to begin the preparation of a local herbarium. Two hours.

Text-books: Gray's Structural Botany; Gray's Manual of Botany of the Northern United States.

Reference books: Ward, Guide to the Flora of Washington and Vicinity; Knowlton, Directions for Collecting Recent and Fossil Plants.

2. Histological and Physiological Botany.

The year will be devoted to lectures and laboratory work in histology and physiology. The cutting of sections, staining and mounting of botanical objects, will be described and illustrated.

*The field excursions* will be continued and the study of the more difficult orders or genera of flowering plants, such as Compositæ, Graminæ, Carex, etc., will be taken up. Attention will also be given to the lower groups, as mosses, algæ, fungi, etc., and the important characters reviewed.

Each student will be required to collect, prepare, and mount an herbarium of one hundred species of local plants, which must be properly identified and classified. Two hours.

Text-books: Goodale's Physiological Botany; Arthur, Barnes, and Coulter, Plant Dissection.

Reference books: Bennett & Murray, Cryptogamic Botany; Lesquereux and James, Manual of Mosses of North America.

3. Paleobotany.

The year will be devoted to a continuation of the previous year's studies, and also to the general subject of Paleobotany. Instruction will be given mainly by lectures and exhibition of specimens, and will be divided into (*a*) Historical, (*b*) Biological, (*c*) Geological. Especial attention will be given to fossil plants as an aid to geology. *The investigation and collection of fossil plants in the vicinity of Washington will be directed.* Two hours.

Reference books: Zittel's Handbuch der Palæontologie; Ward's Sketch of Paleobotany.

### Department of Chemistry.

PROFESSOR MUNROE, Head of Department.
DR. BOLTON, Lecturer on History and Philosophy of Chemistry.
DR. CHATARD, Lecturer on Chemical Engineering.
MR. WHITEHEAD, Assistant in Assaying.
DR. FIREMAN, Assistant in Quantitative Analysis.
MR. MILLS, Assistant in Qualitative Analysis.
———, Assistant in General Chemistry.

1. General Chemistry, being a series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Considerable new apparatus has been purchased for use in the experiments in this course, and a set of valuable charts has been donated by Dr. Bolton. Three hours.

Text-books: Barker's Remsen's, and Bloxam's Chemistries.

2. Chemical Practice and Qualitative Analysis is a laboratory course in the manufacture of chemical substances; the study of their properties and reactions, and of the means employed for their detection and identification. Twelve hours.

Text-books: Clowe's and Fresenius's Qualitative Analysis.

3. Quantitative Analysis is a laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Fifteen hours.

Text-books: Fresenius's and Thorpe's Quantitative Analysis.

4. Technical Analysis and Industrial Processes is a lecture-room and laboratory course in which the elements of chemical engineering will be taught, and special attention will be given to rapid commercial methods of analysis. Twelve hours.

Text-books: Hempel's Gas Analysis, Phillips's Engineering Chemistry, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious metals, to be carried on by the methods in use by the Government assayers, our laboratory being fitted up on the plan of that of the United States Mint. Through the generosity of the Mechanical Gold Extractor Company a model Crawford mill has been added to our equipment, while we are indebted to Mr. L. G. Johnson for a National Rock and Ore Breaker, to be run by power. Both of these machines may be operated by the Lundell motor presented by the Interior Conduit and Insulation Company with the dynamo

acquired during the last year, so that students in this course may become conversant with the most recent appliances used in the milling of ores. Twelve hours per week for three months.

Text-books: Brown's Manual of Assaying, Rickett's Assaying.

6. History and Philosophy of Chemistry is an illustrated lecture course which is offered gratuitously to all students in the Department and which is given at irregular intervals.

7. Chemistry of the Carbon Compounds is a laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Through the intercession of a generous friend of the University, this Department has recently been presented with upwards of two thousand specimens of organic coloring matters, and additional ones are promised by manufacturers. Twelve hours.

Text-book: Cohen's Practical Organic Chemistry.

8. Modern Methods for Iron and Steel Analysis is a laboratory course for which a large amount of valuable material has been accumulated. We have available for checking the work samples which have been analyzed by some of our most eminent specialists. Fifteen hours.

Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive Substances is a laboratory and field-work course in the preparation and in the study of the properties and methods of analysis of explosive bodies. Fifteen hours.

Text-book: Munroe's Chemistry and Explosives.

10. Experimental Chemistry is a laboratory course for the study of the principles of chemistry and the chemical properties of bodies. Five hours.

Text-book: Cooke's Laboratory Practice.

Special attention will be given in all courses to the methods of making notes. Students will be given practice in making abstracts. All will be required to consult the current periodicals and works of reference. Advanced students will be required to prepare a bibliography on some special topic.

The following lectures given before the Sanitary League in the Main Hall of the University have been open to our students:

Bacteria, by Surgeon General STERNBERG, U. S. A.; Water in its Sanitary Relations, by Dr. CHARLES SMART, U. S. A.; Channels of Infection, with Special Reference to Water and Milk, by Dr. THEOBALD SMITH; The Animal Parasites which we obtain through our Food, by Dr. C. W. STILES; Color in its Sanitary Relations, by Prof. CHARLES E. MUNROE.

### Department of Drawing.

PROFESSOR KING, Head of Department and Lecturer on Mechanical Drawing.

MR. THURSTON, Assistant in Mechanical Drawing.

MR. FOWLER, Assistant in Topographic Drawing.

The Department of Drawing at Columbian University has been organized for the special instruction and training of superior draftsmen.

The course of instruction, in conjunction with those of the other departments of the School, will include all branches of drawing practiced in the departments of the Government, and will consist in the main of practical demonstrations on the blackboard and on the individual board of the student.

1. Mechanical Drawing.
2. Topographic Drawing.
3. Topographic Drawing as Applied in Architecture.

Each of these courses will occupy two hours per week and will be supplemented by practice.

### Department of Engineering and Applied Mathematics.

PROFESSOR FAVA, Head of Department.

MR. AVERILL, Instructor in Engineering Field-work.

MR. FREYHOLD, Assistant in Iron and Steel Construction.

———, Assistant in Topographic Surveying.

———, Assistant in Building Construction.

MR. MUIR, Assistant in Machine Drawing.

———, Assistant in Engineering.

MR. JOHNSON, Assistant in Applied Mathematics.

The number of hours after each course signifies "hours per week." Constructive Exercises are carried on largely outside of the regular recitation hours.

#### APPLIED MATHEMATICS.

1. Elements of Applied Geometry, 1 hour.

2. Descriptive Geometry, parts I and II, and Geometry of Position, 2 hours, and Constructive Exercises, 6 hours. Reference: Fava, Warren, Church, Fiedler, Reye, etc.

3. Perspective and Shadows, 1 hour, and Exercises, 2 hours.

4. Stereotomy, 1 hour, and Exercises, 2 hours. Reference: Warren, Adhémar, etc.

5. Elementary Mechanics, 2 hours, second term.

6. Analytical and Applied Mechanics, parts I and II. Reference: Weisbach, Ritter, and Rankine.

7. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.

8. Strength of Materials and Theory of Elasticity, parts I and II, 2 hours. Reference: Same as 5 and 6, with Bresse, Collignon, etc.

9. Graphical Statics, parts I and II, 1 hour, and Designing Exercises, 2 hours. Reference: Culmann, W. Ritter, Du Bois, Koechlin, Fava, etc.

10. Mechanics of Machinery, 1 hour. Reference: Rankine, Reuleaux, etc.

11. Mechanics of Construction for Architects, parts I and II, 1 hour.

CIVIL ENGINEERING.

1. Land Surveying and Theory of Instruments, parts I and II, 2 hours, and Practical Exercises and Field-work in the Spring.

2. Use of Surveying Instruments, for Architects, Mechanical and Electrical Engineers, 6 meetings in the Field.

3. Topographical Surveying, parts I and II, 2 hours, and Field Practice.

4. Railroad and Highway Engineering and Hydraulic Engineering (Canals, Rivers, and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises, 10 hours.

5. Engineering Field-work and Railroad Surveying, 16 meetings.

6. Hydrographic Surveying and Exercises, 1 hour, 1 term.

7. Masonry and Wooden Structures and Iron and Steel Structures, 1 hour, and Constructive Exercises, 15 hours.

8. Engineering Plant, 1 hour, and Sketching Practice.

9. Materials of Engineering and Metallurgy of Iron and Steel, 1 hour.

10. Water Supply, Sewerage, and Sanitary Engineering, 1 hour.

11. City Engineering, 1 hour, 1 term.

12. Municipal Engineering (Street Railroads and Lighting), for Mechanical and Electrical Engineers, 1 hour.

13. Discussion of Engineering Topics, weekly.

14. Inspection of actual work, fortnightly.

BUILDING CONSTRUCTION.

15. Building Construction, part I, 1 hour, and Constructive Exercises, 15 hours. Reference: Rivingtons, I and II; Burrel, Tutthill.

16. Building Construction, Specifications, and Working Drawings, parts II and III, 2 hours each, and Constructive Exercises, 10 hours.

17. Modern Tall Buildings, and the use of iron in buildings, 1 hour.

18. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises, 3 hours.

### Department of English.

PROFESSOR SHUTE, Head of Department.
ASSISTANT PROFESSOR FARQUHAR.

1. Rhetoric; Genung's Practical. Two hours.
2. English Language; Meiklejohn's. One hour.
3. { Deductive Logic; Hill's Jevons's. Two hours.
   { Inductive Logic; Fowler's. Two hours.
4. English Literature; Shaw's Complete Manual, edited by Dr. Smith. One hour.
5. Modern History; Mackenzie. One hour.
6. Civil Government in the United States; Fiske's. One hour.
7. American Literature; Beers's Outline Sketch. One hour.
8. Occasional Dissertations and Debates.

ADVANCED ENGLISH.

1. English Etymology.
2. Anglo-Saxon Poetry and Prose.
3. American Literature.
4. Lectures by Professor Farquhar on—
   (*a*) The History of the Drama from its Origin to the Closing of the Theaters, in 1642. Mondays, 4:30 to 5:30 P. M.
   (*b*) *Prose* of the 19th Century; Essayists, Novelists, Historians. Wednesdays, 4:30 to 5:30 P. M.
   (*c*) General Literature from 1640 to 1800. Fridays, 4:30 to 5:30 P. M.

### Department of Finance and Economics.

PROFESSOR CRAVEN, Head of Department.
MR. BRANDENBURG, Assistant in Commercial Law.
MR. ROBERTSON, Assistant in Accounting.
DR. CASANOWICZ, Lecturer on History of Statistics.
MR. FORD, Lecturer on Statistics.

1. 1st Term: Book-keeping and Accounting. Two hours.
   2d Term: Advanced Book-keeping and Official Accounting. Two hours.
2. 2d Term: Commercial Law and Practice. Two hours.
3. 2d Term: Science of Statistics. One hour.
4. Year: The History of Economic Development. Two hours.
5. 1st Term: The Science of Economics. Two hours.
   2d Term: Practical and Scientific Charities. Two hours.

6. The course in Political Economy given last year will be repeated this year if called for by a class of ten.

7. Commercial Statistics: Students in this Department are earnestly recommended to pursue the collateral subjects of Commercial Geography and Statistics, Physical Geography, Modern History, Civics, Modern Languages, Anthropology, Psychology, and Moral Philosophy.

### Department of Fine Arts as Applied to Architecture.

PROFESSOR AMATEIS, Head of Department.
MR. MEYER, Assistant in Free-hand Drawing.

1. Free-hand Drawing. One hour.
2. Architectural Drawing. (The Five Orders.) One hour.
3. Architectural Drawing. (The Applications of the Five Orders.) One hour.
4. History of Architecture and Ornaments. One hour.

The instruction must be supplemented by practice, for which provision is being made.

FOR GRADUATES IN ARCHITECTURE.

5. Lectures and Graphic Lessons on Interior Architecture and Decorations. One hour.

### Department of Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy, 3d edition.

### Department of Geography.

PROFESSOR GREELY, Head of Department.
ASSISTANT PROFESSOR HAYDEN.

The course of instruction will include Physical and Economic Geography. The methods followed will embrace compilations, collations and investigations by the students, and courses of lectures by the professors. The latest text-books will be supplemented and extended to embrace current geographical data, which will be drawn largely from current scientific and statistical publications of the various Governmental bureaus in Washington.

I. Physical Geography: two hours. Especial attention will be given to such parts of the earth as by fauna and flora, by mineral and vegetable deposits, or by other favoring physical conditions, either contribute most largely or promise future advantages to human welfare. Among other subjects will be considered the material influence of climatic conditions and geological formations as factors in the development of natural resources; modifications and extensions of fauna and flora by human or natural agencies; discoveries of mineral, vegetable, and other deposits; transference of centers of population, industries, and commerce; improvements of natural and creation of artificial transportation routes, and other similar physical features related to human activities.

II. Economic Geography: two hours. The subjects specially studied will bear on the most important factors connected with the development of agricultural and mineral resources, the extension and evolution of industrial methods, and their inter-dependence on trade and commerce. The growth or decadence of the more important activities of countries or regions, transitions in industrial methods, modifications of commercial relations, the development of improved transportation routes, will be considered in their inter-relations to each other and their effect on the future development of the world in general and the United States in particular.

A course of six illustrated lectures, open to students, was delivered in the main hall of the University by Dr. G. K. GILBERT before the National Geographical Society on The Shaping of the Earth's Surface:

1. Uplift and Erosion.
2. Water-work.
3. Water-work.
4. Inter-action.
5. Ice-work.
6. Wind-work.

### Department of Geology and Mineralogy.

PROFESSOR MERRILL, Head of Department.
MR. CHANDLER, Assistant.

1. Descriptive Mineralogy. Two hours a week for one term.

2. Determinative Mineralogy. Course A, four hours a week for one term; Course B, six hours a week for one term.

#### GEOLOGY.

1. Systematic Geology; Geognosy; Dynamical, Structural, and Stratigraphical Geology. Course A, two hours. Text-book; Leconte's Elements of Geology. Course B, three hours. Text-book: Dana's Manual of Geology or Geikie's Text-book of Geology.

2. Economic Geology. Course A, two hours; Course B, three hours. Text-books: Kemp's Ore Deposits of the United States, Merrill's Stones for Building and Decoration.

Mineralogy is taught as introductory to geology. The course is therefore designed with especial reference to minerals as rock constituents or as segregated in ore deposits. So far as possible, the course is practical and includes a study of the ores of the base and precious metals and their associates, and the non-metallic minerals, as the natural salts and the hydrocarbon compounds. Opportunity is given the student to become familiar with blowpipe and qualitative methods of determination, and access is given to a varied collection showing the minerals not merely in their pure and well crystallized forms, but in massive and granular forms, associated with gangue products and other impurities as occurring in nature.

The Course in Geology consists of lectures, recitations, laboratory and field work. Opportunity is given the students in the laboratory, and, so far as hours will permit, in the field as well, to familiarize themselves with the appearance and general characteristics of rock masses. Text-book recitations are supplemented by lectures on the subjects of rock-formation by sedimentation, metamorphism, and vulcanology, and, so far as time allows, on the methods of study by means of the microscope and thin sections (micropetrology). Under the head of Applied Geology are considered, mainly by lectures and laboratory practice, the subjects comprised under (first) mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (second) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, manganese, antimony, etc.; and (third) the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufacture; abrasive, refractory, and fictile materials, mineral pigments, gems and ornamental stones, building stones, limes and cements and mineral waters.

### Department of German.

PROFESSORS GORE AND SCHÖNFELD.

1. Accurate training in elementary grammar; exercises in conversation, with readings from Bilderbuch ohne Bilder, Das Kalte Herz, and Immensee. Two hours.

2. More extended course in German syntax; translations into German; conversation, and extensive readings from the novelists, Lessing, Schiller, Goethe; and Gore's German Science Reader, 4th edition. Two hours.

3. Study of the grammar continued; composition of German essays and literary sketches; critical study of German classics, and lectures on German history and literature. Two hours.

The following lectures, open to students, have been given before the Philological Association of the Columbian University:

The Purpose Relation in the Aryan Languages. Symposium.

Beowulf, by Prof. S. M. Shute, D. D.

Papers have also been read by Professors Huntington, Montague, Gore, Lodge, and Pyne.

### Department of Latin.

PROFESSOR MONTAGUE, Head of Department.
MR. PYNE, Assistant.

1. McCabe's Bingham's Latin Grammar and Cæsar.

2. Cæsar; Cicero; Vergil; Harkness's Latin Grammar; Exercises.

3. Exercises; Latin Grammar continued; Ovid; Livy; the Odes of Horace; and the History of Rome.

4. The Satires and Epistles of Horace; Cicero, De Senectute et De Amicitia; Selected Letters of Pliny; the Germania of Tacitus; Exercises and Latin Grammar.

5. The Agricola and Histories (Book III.) of Tacitus; Seneca; Juvenal; Quintilian; Exercises; Latin Grammar; and the History of Roman Literature (Bender).

Courses 1 and 2 are preparatory and do not count for a degree.

### Department of Mathematics.

PROFESSOR HODGKINS, Head of Department.

1. Algebra: three hours. Bowser's College Algebra.

2. Geometry: two hours. Wells's Plane and Solid Geometry.

3. Trigonometry: three hours, first term.. Wells's Plane and Spherical Trigonometry, and Bowser's Treatise on Trigonometry.

4. Analytic Geometry: three hours, second term. Nichols's Analytic Geometry.

5. Calculus: two hours. Bowser's Calculus.

6. Differential equations: two hours. Johnson's Differential Equations.

7. Least squares: two hours, ten weeks.

A lecture course, with references to Merriman's Least Squares and Wright's Treatise on the Adjustment of Observations.

8. Determinants: two hours, ten weeks.

Peck's Determinants; Hanus' Determinants.

9. Quaternions: two hours, ten weeks.

Hardy's Quaternions.

Courses 8 and 9 are short lecture courses based on the books named, and, while intended especially for students who wish only the elements of the subjects, serve as preparation for the advanced courses in the same subjects described under the Graduate School.

### Department of Mechanical Engineering.

———, Head of Department.
MR. MUIR, Assistant in Machine Drawing.

1. Elementary projection and drawing of the elements of machines. For students without preparation. Four hours.

2. Shop-drawing practice. Four hours.

3. Construction of Machinery, part I (the Elements of Machines, etc.), one hour, and Constructive Exercises, six hours.

Reference: Unwin, Reuleaux, etc.

4. Construction of Machines, parts II and III, one hour each, and Constructive Exercises, ten hours.

### Department of Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the states of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opinions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. FIRST YEAR.—Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continual references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours.

2. SECOND YEAR.—Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*.

Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours.

3. THIRD YEAR.—Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous examination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours per week.

The following lectures, open to students, have been given before the Society for Philosophical Inquiry of the Columbian University:

"Kant's Third Antinomy and his Fallacy regarding the First Cause," by Dr. W. S. HARRIS.

"Criticism and Amendment of Herbert Spencer's Definition of Evolution," by Mr. HENRY FARQUHAR.

"The Relation of Philosophy to Science," by the Rt. Rev. JOHN J. KEANE, D. D., LL. D.

"Discussion of Herbert Spencer's First Principles," by Dr. W. T. HARRIS.

"Being and Existence," by the Rev. FRANK SEWALL.

"Agnosticism," by the Rev. Prof. ALFRED MOMERIE, D. D.

"The Mechanical Theory of the Universe," by the Rev. Prof. FRANK H. BIGELOW.

"The Ego, its Whence and Where," by Prof. LESTER F. WARD, LL. D.

"The Relation of Hedonism to Pessimism," by the Rev. J. McBRIDE STERRETT, D. D.

"The Categories of the Real World," by Major J. W. POWELL, LL. D.

"Monism, idealistic and realistic," by Prof. E. S. STEELE.

"Cartesianism in Philosophy," by Prof. LEE DAVIS LODGE, Ph. D.

"What is Metaphysics?" by President JAMES C. WELLING, LL. D.

## Department of Meteorology.

PROFESSOR ABBE, Head of Department.
MR. CURTIS, Assistant.

The series of courses in the Department of Meteorology is designed to give a complete review of the present condition of that science, and is therefore necessarily extended through four years; but the series of lectures is so arranged that each of the four divisions is complete within itself; each course presents a view of a branch of the subject such as may be desired by a large number of students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

Students who intend to take the degree of Ph. D. in meteorology, and who therefore make this the major subject in connection with several other minor courses, must pursue the whole four years' course. Those who desire merely to enter the service of the United States Weather Bureau will probably find the first year's course sufficient to enable them to pass the necessary civil-service examinations. Those who desire to do work in climatological study should also take the second year. The third year's course is designed for those who wish to perfect themselves in methods of making local weather forecasts. Finally, the fourth year's course will serve as an abundant introduction to the present state of our knowledge of the mechanics and physics of the atmosphere. In addition to the lectures, the instructor will give one hour a week to a quiz-class, in which, by question and answer, he will seek to remove any difficulties that remain.

1. OBSERVATIONAL METEOROLOGY.—The methods of observation; the simpler instruments, their errors, corrections, and reductions; the use of self-registers; the forms of record and computation; personal diary of the weather.

TIME.—About eighty lectures, or two hours a week, as also eighty other hours of personal investigation of instruments, especially self-registers.

Algebra and trigonometry are necessary preliminaries to this course. Elementary laboratory physics, as illustrated by Hall and Bergen's text-book, is desirable as a preliminary, but may be pursued as a concomitant study. The German language is earnestly recommended as a concomitant. The differential and integral calculus will be needed as preliminary to the Graduate Course in Meteorology.

2. Climatology, both local and general; empirical meteorology, generalizations, averages, periodicities, irregularities. The relation of climate to geology, to vegetation, to animal life, and to anthropology.

TIME.—About forty lectures and four hours weekly given to the investigation of special problems proposed in each lecture.

Students should be familiar with the use of logarithms; the method of least squares; the laws of chance; the details of physical geography, orography, geology, and ocean currents; the physiology of plants and animals; the distribution of species; physical astronomy, especially that of the sun, earth, and moon; terrestrial magnetism; the chemistry of the atmosphere; the biology of atmospheric dust. Physical laboratory work on radiation, conduction, and absorption of heat, and on condensation and evaporation of vapor, and on elementary electricity, is recommended, while German, the calculus and and analytic mechanics should be continued as preliminary to the Graduate Course.

### Department of Physics and Electrical Engineering.

ASSISTANT PROFESSOR LEWIS, Head of Department.
DR. BLOMÉN, Instructor.

1. General Physics, two hours. First term: Mechanics, Sound, and Heat. Second term: Light, Electricity, and Magnetism.

Barker's Physics (Advanced Course, American Science Series) will be used as a text-book. The course will be fully illustrated by experiments; working models of steam-engines, dynamos, and motors will be shown, and practical physical measurements will be made before the class.

The students who are candidates for degrees are required to perform about fifteen typical experiments in the laboratory.

2. Elementary Mathematical Theory of Electricity. Two hours per week for one term.

3. Dynamo-electrical Machinery. Two hours per week for one term. Slingo and Brooker's Electrical Engineering will be used as a basis.

4. Advanced Mathematical Theory of Electricity and alternating current machinery. Two hours per week for one term. Lectures based on Gerard, Emtage, Thompson, and other authorities.

5. Technical Applications of Electricity. Two hours per week for one term.

6. Thermo-dynamics and the Steam-engine. Two hours per week for one term.

Text-book: Holmes' Steam-engine.

7. Physical Laboratory. Three hours. The exercises will include the fundamental measurements and experiments in all branches of Physics, including the following in Electricity and Magnetism: Map of magnetic field, determination of horizontal component of earth's magnetism, dis-

tribution of magnetism, qualitative electrostatic experiments, use of Wheatstone bridge, tangent galvanometer, determination of electromotive force, electro-magnet induction, measurement of current by water and copper voltameter, magnetic dip by earth inductor.

8. Advanced Laboratory Work. Six hours.

9. Inspection of Electric Plants.

Occasional meetings will be held at which papers on special subjects will be read by advanced students. All interested will be welcomed at these meetings.

No regular course in shop-work will be offered at present, but a turning lathe and other tools will be provided, and laboratory students who so desire may familiarize themselves with their use by the construction of various pieces of physical apparatus, plans of which have been prepared.

The leading electrical journals are on file in the library.

The following accessions to the physical laboratory were made during the past year: Riker dynamo, 1 kilowatt, wound by students; parts of Edison dynamo, ¾ kilowatt, to be wound by students (gift of General Electric Co.); Lundell motor, 1 horse power (gift of Interior Conduit and Insulation Co.); Ayrton and Perry voltameter; Whitney ammeter and voltameter (gift of Whitney Co., Boston); steam-engine, 4 horse power; switches, sockets, and other specialties (gifts of Hammond Cleat and Iona Electrical Cos.); a spectrometer, barometers, reflecting galvanometers, high-resistance coils, telephones, and other articles have been ordered.

## Department of Romance Languages.

PROFESSOR LODGE, Head of Department.
MR. RAMSEY, Instructor in Spanish and Italian.

### THE FRENCH LANGUAGE.

1. The whole course is especially adapted to scientific students. The class is drilled in French pronunciation, grammar, and composition; exercises in conversation. After some easy French by way of introduction, Histoire d'un Conscrit is read. Van Daell's Introduction to French Language is used. Two hours.

2. Critical study of syntax; Composition; Dictation. Le Cid, Histoire du Peuple Français, Andromaque, Bug-Jargal, and L'Avare are read. The "Revue Scientifique" is also used instead of a text-book during a part of the year. Two hours.

3. Study of idioms; frequent recitations in French; Composition of French essays; Conversation; Lectures on the development of the French language and literature; selections from De Staël, Hugo, Lamartine, Souvestre, Sandeau, and Scribe. Two hours.

4. A special course in reading, composition, and conversation is offered for students in Course of the Department of Economics. The books read are the standard treatises of the French Political Economists. Periodical economic literature is also read in class. Four hours.

SPANISH.

1. The class is drilled in pronunciation, in hearing the spoken language, and in writing from dictation. The essentials of the grammar are presented, accompanied by practice in reading and conversation. Two hours.

2. More extended presentation of the grammatical structure of the language. Critical and comparative study of syntax and idioms. History and development of the Castilian language and literature. Exercises in literary composition. Reading from standard works of modern Spanish and Spanish-American authors. Two hours.

Text-books: Ramsey's Text-book of Modern Spanish; El Lector Americano, No. III, and Spanish texts to be selected as required.

The course has special reference to the rapidly increasing intercourse between the United States and the Spanish-American Republics, and as much attention as possible is given to the customs, usages, resources, and products of those countries.

ITALIAN.

1. The class is drilled in pronunciation and in translating the exercises of the text-book. After the rudiments of the grammar have been mastered the class is led at once to the reading of the easier classic authors, ending with "I Promessi Sposi" of Manzoni. Two hours.

2. Further study of the grammatical construction and the principles of syntax and style. History and development of the Tuscan language and literature. Selections from Dante Alighieri, Petrarca, Boccaccio, Boiardo, Ariosto, Tasso, Goldoni, and Pellico. Two hours.

Text-book: Cuore's Italian Grammar.

## Department of Zoölogy.

PROFESSOR GILL, Head of Department.
MR. HAY, Assistant in Zoölogy.

1. Elements and General Principles of Zoölogy. Two hours. Packard's.

2. Natural History of Invertebrates. Two hours.

3. Natural History of Vertebrates. Two hours.

The address of the President of the Biological Society of Washington was delivered by Prof. C. V. Riley, on "The Social Insects," in the main hall of the University, the meeting being open to students.

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least six weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least four weeks before the date of commencement."

"Examinations for *prizes* in each of the said Departments, and for the Degree of Master of Arts in the College, shall be closed at least five weeks before the end of the scholastic year, and the names of the successful candidates for either shall be reported at least three weeks before the date of commencement."

### Certificates, Diplomas, and Degrees.

To the foregoing subjects a definite value or weight is assigned, the unit being, in general, *one recitation a week for a year*, with a satisfactory examination sustained at the close. (The unit in Designing work is two hours a week for one year. The unit in Field-work will vary according to circumstances.)

A student completing certain related branches of one department, and passing a satisfactory examination, will receive a Certificate of proficiency.

A student completing all the studies prescribed for any department of which the course extends over two or more years will receive a Diploma.

The degree of Bachelor of Science is conferred upon a student who successfully completes the courses offered or other equivalent courses, aggregating not less than sixty units, which have been approved by the Faculty.

For the courses of study in the Graduate School and the requirements thereof, see under head of "Graduate School."

### Scholarships.

*Mary Lowell Stone Scholarship*, founded as "a memorial to a woman student of science, from a woman, for women students of science," con-

sists of a fund of two thousand dollars, the income from which "is to be paid to needy women, students in the Corcoran Scientific School of the Columbian University, at the discretion of the Dean of said School."

*Edward T. Fristoe Scholarship*, founded in memory of the first Dean and Professor of Chemistry of the Corcoran Scientific School, consists at present of a fund of three hundred and fifty dollars, the income from which may be paid to some deserving student of chemistry at the discretion of the Dean.

**Prizes.**

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of Fifty Dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

To stimulate students in Engineering, prizes are offered by Francis R. Fava, Jr., Professor of Engineering, to students who attain certain standards in the following branches in the several years of the course:

1. The Designing problem in Building Construction (2d year).

2. A Report on Engineering Work with which the student has been connected during his vacation (3d year).

3. An Investigation in Graphical Statics (4th year).

4. Degree Work (Graduate School).

Prizes 1 to 3 consist of valuable Engineering works, and Prize 4 of a medal.

The Prizes are awarded by Committees of Eminent Engineers, outside of the University, invited for this purpose by the President of the Institution. The prize or prizes are given not merely for the *best* among all papers presented, but only for work reaching a certain *standard* required by the specifications. Thus, one student, even if alone, can compete for a prize, or, in the same class, several students can win prizes at the same time.

In order to be admitted to a prize competition an applicant must be at the time a student of that particular class in which the prize is offered and have a satisfactory standing in all the Departments for which he is registered.

The Willie E. Fitch Prize was awarded in 1892 to H. H. Hawling, and in 1893 to O. J. Schneider. The Fava Prize was awarded in 1891 to C. C. J. Norris, and in 1893 to E. L. Thurston, for excellence in Degree Work in Civil Engineering.

### Annual Tuition Fees.

| | |
|---|---|
| For single studies not involving any laboratory, designing, or field-work | $30 00 |
| For full Courses (in addition to laboratory fees) | 90 00 |
| Laboratory Courses in Chemical Laboratory (except 10) | 100 00 |
| For chemicals used | 25 00 |
| Deposit (returnable) for apparatus injured | 25 00 |
| Course 10 in Chemical Laboratory, including cost of material and apparatus | 50 00 |
| Laboratory Courses in Assaying of Ores and Bullion | 40 00 |
| For materials used | 20 00 |
| Laboratory Courses in Physical Laboratory | 30 00 |
| Laboratory Course in Mineralogy | 60 00 |
| For materials used | 10 00 |
| Laboratory work, field-work, and designing in Civil and Electrical Engineering | 20 00 |

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

*All fees are payable in advance*, unless special arrangement be made with the Dean to suit the convenience of the student, notice of which must be filed with the Treasurer. *Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.*

A student desiring to make any change in his course of study or to drop any study must inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. *Students failing to conform to this requirement are responsible for the fees entered on their certificates until such notice is rendered.*

### Rooms and Board.

During the year 1893-1894 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month.

For further information regarding the Corcoran Scientific School, application may be made to

PROF. CHARLES E. MUNROE,
*Dean of the Faculty.*

N. B.—Students who wish to pursue the study of Greek in connection with the other studies prescribed in the College Course for the degree of Bachelor of Arts can do so on reporting their names to the President of the Faculty. Classes will be formed in this Department by the Rev. A. J. HUNTINGTON, D. D., Professor of Greek in the Columbian College.

## CANDIDATES FOR DEGREES.

### Candidates for the Degree of Civil Engineer.

| Name. | Residence. |
|---|---|
| Aspinwall, William Humphrey, | Pennsylvania. |
| Davis, Harold, | Ohio. |
| Deming, William I., | District of Columbia. |
| Johnson, John Scott, | Texas. |
| B. S., Columbian University, 1893. | |
| Meigs, John, Jr., | District of Columbia. |
| Muir, Edward Adams, | Pennsylvania. |
| Pendleton, Joseph Saxton, | District of Columbia. |
| Perry, George Franklin, | District of Columbia. |

### Candidates for the Degree of Electrical Engineer.

| Name. | Residence. |
|---|---|
| Muir, Edward Adams, | Pennsylvania. |

### Candidates for the Degree of Bachelor of Science.

| Name. | Residence. |
|---|---|
| Armstrong, John E., | New York. |
| Berry, Frederick Brooke, | District of Columbia. |
| Biehl, William F., | Ohio. |
| Ph. B., University of Georgia. | |
| LL. B., National University, D. C. | |
| Boettcher, Frederick Ludwig Johannes, | Virginia. |
| Brockett, Paul, | District of Columbia. |
| Clancy, M. Agnes, | District of Columbia. |
| Combs, Clark Waller, | Kansas. |
| Cook, De Witt Clinton, | New York. |
| Cousar, James Lewis, | Arkansas. |
| Cross, S. Clark, | District of Columbia. |
| Dennison, G. G., | District of Columbia. |
| Doolittle, Harry P., | District of Columbia. |
| Eckhardt, Nicholas, Jr., | District of Columbia. |
| Faulstick, C., | District of Columbia. |
| Gana, Don Alfredo V., | Chile. |
| Ph. B., University of Chile, 1893. | |
| Greene, Clark West, | Pennsylvania. |
| Hackett, William Thomas, | Maryland. |

| Name. | Residence. |
|---|---|
| Holbrook, Lille B., | District of Columbia. |
| Hudson, John R., Jr., | Georgia. |
| Hughes, William Goldsborough, | District of Columbia. |
| Hull, John B., | Virginia. |
| Lieut. U. S. R. M. S. | |
| Keys, H. M., | Maryland. |
| Lamoreux, Don Percy, | Wisconsin. |
| Lamson, William Mather, | District of Columbia. |
| Libby, Fred. Nelson, | Wisconsin. |
| Lichty, John Benjamin, | Illinois. |
| Loeffler, Carl A., | Pennsylvania. |
| Mann, Horace, | District of Columbia. |
| Mason, Victor L., | District of Columbia. |
| Maurin, Timothy Francis, | Louisiana. |
| Means, Thomas Herbert, | Virginia. |
| Oertly, David H., | District of Columbia. |
| Owens, Charles C., | Maryland. |
| Parker, Charles Lieberman, | District of Columbia. |
| Pletcher, Sergius S., | Pennsylvania. |
| Ramsey, Marathon Montrose, | West Virginia. |
| Reisner, F. F., | Missouri. |
| Rice, De La Pointe, | Iowa. |
| Sioussa, M. J., | District of Columbia. |
| Stevens, Robert R., | District of Columbia. |
| Taylor, Thomas Charles, | Ohio. |
| Thatcher, Edward T., | Minnesota. |
| Thompson, Charles F., | Virginia. |
| Twitchell, Mayville William, | New York. |
| Woollen, Albert S., | Indiana. |
| Workman, Henry C., | Michigan. |

Candidates for Degrees, . . . . . 55

## SPECIAL STUDENTS.

### Abbreviations.

A. C.—Analytical Chemistry.
ANTH.—Anthropology.
ARCH. DR.—Architectural Drawing.
AS.—Assaying.
AST.—Astronomer.
B.—Botany.
B'P.—Blowpipe.
C.—Chemistry.
C. E.—Civil Engineering.
E.—English.
EC.—Economics.
EL.—Electricity.
F.—Finance.
FR.—French.
FR. H. DR.—Free-hand Drawing.
GEOG.—Geography.
GEOL.—Geology.
GER.—German.
G.—Greek.
L.—Latin.
M.—Mathematics.
MACH. DR.—Machine Drawing.
MECH. DR.—Mechanical Drawing.
MET.—Meteorology.
MIN.—Mineralogy.
PHIL.—Philosophy.
P.—Physiology.
PHYS.—Physics.
PSY.—Psychology.
S.—Spanish.
TOP. DR.—Topographical Drawing.
Z.—Zoölogy.

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|---|---|---|
| Ames, Clara, | D. C., | E. |
| Andrews, Francis H., | Wyo., | Ger. |
| Arnold, Grant S., | Pa., | As., C., Min. |
| Ashford, Edwin Welsh, | D. C., | F. |
| M. D., Columbian University, 1890. | | |
| Bailey, Irene Temple, | D. C., | Ger. |
| Bailey, Vernon, | Minn., | E., Ger. |
| Bartlett, Lewis M., | Mass., | M. |
| Bayly, Margaret, | D. C., | Ec. |
| Bayne, John J., | Va., | Mach. Dr. |
| Beck, Winfred, | Ill., | M. |
| Blandy, Madeleine Alderman, | D. C., | Psy. |
| Blomen, Jonas Emil, | N. Y., | As. |
| Ph. D., Upsala University, 1884. | | |
| Blye, Benjamin F., Jr., | N. Y., | Arch. Dr., Mach. Dr. |
| Bolway, William J., | N. Y., | C. |
| Bradbury, Eugene, | Va., | Arch. Dr. |
| Brecht, Walt. T., | N. J., | Mach. Dr. |
| Brickenstein, John Henry, | D. C., | Ec. |
| Brown, Orville Graham, | D. C., | L. |
| Burroughs, Lillian O., | D. C., | Psy. |
| Cavanagh, Julia, | D. C., | Geol. |
| Christman, Artemus J., | Pa., | M. |
| Chunn, Ida F., | D. C., | E. |

| | | |
|---|---|---|
| Clark, Edna A., | D. C., | E. |
| Clark, Thaddeus S., | D. C., | C. |
| Collins, Frederick, | D. C., | M. |
| Connolly, Louise, | D. C., | Ec., Geol., Geog. |
| Constantine, Dominique B., | Ga., | Ger., Top. Dr. |
| Cook, May Estelle, | D. C., | E. |
| Costigan, Thomas L., | Del., | A. C. |
| Cotton, William Edwin, | D. C., | C. |
| Cowan, Alfred Harper, | Can., | Min. |
| Craig, Chaplain R., | Md., | M., Mech. Dr. |
| Crawford, Jessie H., | Ill., | E. |
| Croxton, Frederic Cleveland, | Ill., | C., M., Mech. Dr. |
| Daly, Bartholomew, | N. Y., | Arch. Dr., Geol., Mech. Dr. |

B. S , Columbian University, 1891.

| | | |
|---|---|---|
| Dalzell, Samuel, | Pa., | C. |
| Davis, Annie Lewis, | Miss., | Ger., S. |
| Davis, Charles Allan, | Ohio, | E., Geol. |

B. S., Columbian University, 1890.
LL. B., National Law School, 1893.

| | | |
|---|---|---|
| Davis, Joshua, | Pa., | A. C. |
| Ellis, Anna, | D. C., | E. |
| Ellis, Edmund P., | D. C., | M. |
| Fadeley, Forrest F., | D. C., | C., E., Ger., M., L. |
| Faris, Robert Lee, | Mo., | M. |
| Farmer, Harry, | Iowa, | E. |
| Faulkner, William Thomas, | Miss., | Ast., B., C., L. |
| Ferree, Sheridan, | Idaho, | Geol., Min. |
| Fishback, Lucy Overton, | D. C., | Ger. |
| Flannery, Edward Michael, | Md., | E. |
| Ffoulke, Horace Cushing, | D. C., | A. C. |
| Forrest, Julius Crawford, | Va., | M. |
| Garrison, Carl Louise, | D. C., | Geol. |
| Gerry, Philip, | Md., | E. |
| Giddings, Mrs. Sallie D., | Va., | M. |
| Greene, Elwin, | Minn., | Arch. Dr. |
| Greene, E. Milton, | D. C., | As. |
| Grosvenor, Gertrude, | Ohio, | Ger. |
| Hall, Clarence, | D. C., | A. C. |
| Hamner, George Wesley, | Ala., | F., Ger. |

A. B., 1882; A. M., 1885, Hiwassee College, Tennessee.
LL. B., University of Alabama, 1885.
LL. M., Georgetown University, 1886.

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|---|---|---|
| Harper, Bartlett E., | Iowa, | E. |
| Harrison, Nannie S. D., | Va., | E. |
| Hart, Amos Winfield, | D. C., | C. |
| Hartshorn, Robert H., | Ohio, | A. C. |
| Hawes, Richard Paulison, | N. Y., | M. |
| Hawling, Henry H., | D. C., | O. C. |
| Hawxhurst, Wilbur, | D. C., | Geog. |
| Haycock, William Hunter, | D. C., | M. |
| Hayden, Elizabeth, | D. C., | Psy. |
| Hayden, Frank, | W. Va., | Fr., L. |
| Hayden, Raphael, | W. Va., | Fr., L. |
| Hayward, Henry Argels, | Minn., | S. |
| Henkle, Benjamin F., | D. C., | Mach. Dr. |
| Hopkins, N. Monroe, | D. C., | As., Phys. |
| Hudson, Edward Clark, | Tex., | Fr., Ger. |
| Hunt, Livingston, | D. C., | E. |
| Hunter, Mary Effie, | Mass., | M. |
| Ingersoll, William Bigilow, | Md., | Fr. H. Dr., Mech. Dr. |
| Janney, Thomas Gordon, | Va., | C. E. |
| Johnson, J. Burr, | Md., | F. |
| Johnson, William H., | N. Y., | El., M. |
| Jones, Elizabeth N., | Mass., | M. |
| Jones, J. W., | D. C., | M. |
| Kaufman, Harry M., | D. C., | M. |
| Keefer, Abraham B., | Pa., | M. |
| Keogh, Margaret, | D. C., | M. |
| Kerr, William H., | Mo., | M. |
| Kuhnel, Paul A., Jr., | N. Y., | M. |
| Lamson, Louis Bernard, | D. C., | M. |
| Lee, Harry Holbrook, | Ohio, | L., M. |
| Leonard, William E., | Iowa, | L. |
| Looker, Edward Farragut, | Ohio, | F. |
| Luebkert, Otto James John, | D. C., | M. |
| Lynch, James A., | N. Y., | M. |
| Lyon, Samuel Powell, | N. Y., | M. |
| McBeth, John, | D. C., | Arch. Dr. |
| McCreery, Thomas L., | D. C., | C. |
| McDonald, Jessie Claire, B. S., Wellesley, 1888. | D. C., | E. |
| McKelden, Marie Christie, | D. C., | C. |
| McNabb, Charles Everet, | D. C., | F. |

Mahoney, Edward T., N. Y., Mech. Dr.
Merillat, Margaret J., D. C., M.
Mills, Joseph Stranger, D. C., As., Fr.
A. B., Western Maryland College, 1890.
A. M., 1893.
Moon, John B., Minn., Elect., Mach. Dr.
Moore, William H., Ill., E.
Morris, Berta C., D. C., E.
Newton, Amanda A., D. C., Mech. Dr.
North, Hilda, D. C., M.
Perham, Ernest Aurestus, Me., M.
Perlie, Horace Edgar, D. C., M.
Pfeiffer, George B., Md., As., O. C.
B. S., Virginia Agricultural College.
Phelan, Mary Early, Va., E.
Phelps, Charles Preston, D. C., A. C.
Phelps, Francis M., Conn., C., Phys.
Phillips, Edson, N. Y., Arch. Dr., Fr., Mech. Dr.
Pike, Lilian, Ark., M.
Plant, Andrew Clinton, Jr., D. C., Arch. Dr., E.
Pomeroy-McElroy, Mrs. Karl Thayer, D. C., A. C.
A. M., University of Kansas.
Priest, William Edwin, Pa., Ec.
Putnan, James Wetherow, Pa., A. C.
Randall, George S., N. Y., E., M.
Randall, Walter Bailey, La., A. C., As.
Riley, Ella Josephine, D. C., Geol.
Robertson, Powhatan Wyndham, D. C.,
Robinson, Henry James, N. Y., M.
Rosen, George Ernest, Ky., Phys.
Ruebsam, Ernest Carl, D. C., M.
C. E., Columbian University, 1892.
Russ, Edward Bartlett, Pa. Mach. Dr.
Russell, Edward G., Ga. El., Phys.
Sammons, Margaret R., N. Y., Mech. Dr.
Sanders, Salvador A., D. C., M.
Sawyer, Raymond Estcourt, D. C., M.
Schiller, Perrie, D. C., C.
Schwartz, Andrew John, W. Va., M., Phys.
Shepherd, Harry W., Md., As.

| | | |
|---|---|---|
| Simmons, Alice M. B., | Mich., | M. |
| Smyth, James Jerome, | Tenn., | L. |
| Somes, Frank Case, | D. C., | C. |
| Spies, Jennie Harbason, | D. C., | Geol. |
| Stanley, Minica A. | Mass., | E. |
| Starck, Georgia C. | N. Y., | M. |
| Strong, George Williams, | D. C., | Mach. Dr. |
| Swearingen, Scott A., | La., | M. |
| Swope, D. Paul, | Pa., | M. |
| Thompson, Ernest G., | D. C., | F. |
| Throckmorton, Frances Estelle, | D. C., | E. |
| A. B., Columbian University, 1893. | | |
| Thurston, Ernest Lawton, | D. C., | M. |
| C. E., Columbian University, 1893. | | |
| Town, Frederic E., | D. C., | Ger., M. |
| Townsend, Arthur, | D. C., | M. |
| Tyler, Irene C., | Mass., | E. |
| Vale, Frank Palmer, | D. C., | Geol., Z. |
| M. D., Georgetown University, 1893. | | |
| Walker, Albert M., | Iowa, | C. E. |
| Watson, Maud, | D. C., | E. |
| Weeks, Frederic Boughton, | Kans., | C., Fr., Ger., Geol., Min., M. |
| Whitney, Cornelia, | D. C., | Psy. |
| Wilcox, Charles N., | N. Y., | Mach. Dr. |
| Wilcox, Walter Dwight, | D. C., | Elect. |
| Wiley, Robert Emmett, | D. C., | E. |
| Williams, Frances, | Kans., | Ger. |
| Wilson, Alice Louise, | D. C., | E. |
| Wilson, Edwin Sherwood, | D. C., | As., Geol., Min. |

Special Students, . . . . . 159

### Special Students in Chemistry.

| Name. | Residence. |
|---|---|
| Baldwin, Marian, | Illinois. |
| Ball, Marion V., | District of Columbia. |
| Bradenbaugh, Elizabeth, | West Virginia. |
| Cabell, Margaret, | District of Columbia. |
| Gordon, Esther, | District of Columbia. |
| Gorham, Maud Bassett, | District of Columbia. |
| Ingersoll, Heline, | District of Columbia. |
| Keyser, Alice Gertrude, | District of Columbia. |
| Kirk, Estelle M., | District of Columbia. |
| Knight, Evelyn, | District of Columbia. |
| Merrick, Mildred C., | District of Columbia. |
| Noyes, Bertha, | District of Columbia. |
| Peter, Agnes, | District of Columbia. |
| Rittenhouse, Elsie C., | District of Columbia. |
| Spignul, Mamie, | District of Columbia. |
| Thompson, Maud, | District of Columbia. |
| Waite, Mary C., | District of Columbia. |
| Watson, Marie M., | District of Columbia. |
| Wilkinson, Lucile, | District of Columbia. |
| Williamson, Mamie, | District of Columbia. |
| Witman, Alice, | District of Columbia. |

Special Students in Chemistry, . . 21

### Recapitulation.

| | |
|---|---|
| Candidates for Degrees, . . . . . | 55 |
| Special Students in one or more Studies, . . . | 159 |
| Special Students in Chemistry, . . . . . | 21 |
| Aggregate, . . . . . | 235 |

# THE GRADUATE SCHOOL.

**Faculty.**

JAMES C. WELLING, LL. D., PRESIDENT,
Professor of the Philosophy of History.

CHARLES E. MUNROE, S. B., DEAN,
Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

J. HOWARD GORE, PH. D.,
Professor of Mathematics.

LEE D. LODGE, PH. D.,
Professor of French.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, M. D., PH. D.,
Professor of Zoölogy.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, PH. D., LL. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

EDGAR FRISBY, A. M., U. S. N.,
Professor of Astronomy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

WILLIAM T. HARRIS, LL. D.,
Professor of Philosophy.

EMIL A. DE SCHWEINITZ, PH. D.,
Professor of Bio-Chemistry.

FRANK W. CLARKE, S. B.,
Professor of Mineral Chemistry.

HARVEY W. WILEY, M. D., PH. D.,
Professor of Agricultural Chemistry.

THE REV. FRANK H. BIGELOW, A. M.,
Professor of Solar Physics.

ALEXANDER S. CHRISTIE, LL. M.,
Professor of Mathematical Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics.

EXUM PERCY LEWIS, B. S.,
Assistant Professor of Electrical Engineering.

EDWARD FARQUHAR,
Assistant Professor of English.

The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and was opened for the reception of students on Thursday, the 5th of October, 1893.

The Second Session will begin October 4, 1894.

The School will be opened each year with a public address by a member of the Faculty. The opening address of the scholastic year 1894–'95 will be delivered by the Dean of the Faculty.

### Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors of the School; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors.

### Masters' Degrees.

Persons holding degrees of A. B. from institutions of repute are qualified to enter as candidates for the degree of A. M., and those holding S. B. degrees for the degree of M. S.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present a satisfactory thesis on this subject.

### Engineering Degrees.

Persons holding the degree of S. B. in Engineering courses, or their equivalent, from institutions of repute, are qualified to enter as candidates for the degrees of C. E. and E. E.

Candidates to be eligible shall pass one year at this University in the advanced study of engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

### Doctors' Degrees.

Persons holding degrees of Master in Science, in Art, or their equivalent, from institutions of repute, are qualified to offer themselves as candidates for the degree of Ph. D.

Candidates for the degree of Ph. D. shall offer themselves in three topics for advanced study—one major and two collateral minor subjects.

Before being admitted as candidates they shall pass satisfactory examinations in French and German, shall pay an examination fee of five dollars for the examination in each of these tongues, and shall pay a matriculation fee of ten dollars.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in study at this University; they shall sustain satisfactory examinations upon the three subjects which they may have elected, and they shall present theses embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts, and shall accompany with an exhaustive bibliography.

### Fees.

The matriculation fee of candidates for any degree conferred by the University in this School is ten dollars, but this fee will be remitted to those who shall have taken in this University the preliminary degrees required for their respective candidatures.

The annual fee for instruction and direction of candidates for Masters' or Engineering degrees is thirty dollars.

The annual fee for instruction and direction of candidates for a Doctor's degree is ninety dollars.

Where laboratory courses are taken, whether for a Master's, an Engineering, or a Doctor's degree, the fee in excess of the above-mentioned fees will be fixed according to regulations prescribed by the Board of Directors, with the approval of the Corporation.

### Board of Directors of University Studies.

JAMES C. WELLING, LL.D., President, and Professor of History.
CHARLES E. MUNROE, S. B., Dean, and Professor of Chemistry.
THE REV. A. J. HUNTINGTON, D. D., Professor of Greek.
ANDREW P. MONTAGUE, Ph. D., Professor of Latin.
THE REV. SAMUEL M. SHUTE, D. D., Professor of English.
THEODORE N. GILL, M. D., Ph. D., Professor of Zöology.
OTIS T. MASON, Ph. D., Lecturer on Anthropology.
CLEVELAND ABBE, Ph. D., Professor of Meteorology.
D. KERFOOT SHUTE, A. B., M. D., Professor of Anatomy.
J. HOWARD GORE, Ph. D., Professor of Mathematics.
LEE D. LODGE, Ph. D., Professor of French.
HERMANN SCHÖNFELD, Ph. D., Professor of German.
THE REV. J. MACBRIDE STERRETT, D. D., Professor of Philosophy.
THE REV. FRANK H. BIGELOW, A. M., Professor of Solar Physics.

Inquiries for special information concerning graduate studies in Language, in Speculative Philosophy, in Moral, Political, and Historical Philosophy, and in Anthropology should be addressed to the President of the University.

Inquiries for special information concerning graduate studies in Mathematics, in Astronomy, in Chemistry and Physics, in Geology, in Zoölogy, in Comparative Anatomy, in Meteorology, and in Civil and Electrical Engineering should be addressed to the Dean of the Graduate School.

### Courses of Study in the Graduate School.

The following courses of study are offered to students in the Graduate School. Candidates for the degree of Ph. D. will be required to select their major subject from among those offered below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors of the Graduate School.

### Graduate School of English.

PROFESSOR SHUTE.
ASSISTANT PROFESSOR FARQUHAR.

Graduate studies in this School are offered in—I. English Etymology; II. English Literature; III. American Literature; IV. Anglo-Saxon Prose and Verse; V. Advanced English, leading, according to prescribed groupings and range of studies, to the degree of Master of Arts or Doctor of Philosophy.

### Graduate School of Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

I. Herodotus and Thucydides.

II. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.

III. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.

II. The Tragic Poets.

III. Plato or Aristotle.

### Graduate School of Latin.

PROFESSOR MONTAGUE.

In this School three courses are offered, and selections are made from those works of the authors named below which are not usually read by undergraduates:

I. Plautus, Cicero, Tacitus.

II. Terence, Livy, Pliny the Younger.

III. Lucretius, Catullus, Seneca, Justinian (*Institutes*).

In connection with each course the following subjects will be studied:

1. Fragments of Early Latin; Latin Inscriptions (Allen).
2. Roman Versification (Platner).
3. The History of Roman Literature (Cruttwell).
4. Critical Study of Syntax (Peters; Roby).
5. Latin Composition (Translations from prose authors to be rendered without preparation into Latin).
6. Monthly Essays (*in Latin*) upon the authors and their Times.
7. Papers upon the peculiarities of authors and upon the obligations of modern to ancient writers, and abstracts of works assigned.
8. Review of Roman History; Study of Epochs.
9. Roman Antiquities (Dr. Smith; Rich).
10. Comparative Philology.
11. An exhaustive bibliography of each of the authors read.

For A. M., any one course; for Ph. D., any two courses.

### Graduate School of French Philosophy.

PROFESSOR LODGE.

The following courses in French Philosophy are offered to graduate students:

I. (*a.*) A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.

Text-book: Weber's Histoire de la Philosophie Européenne.

(*b.*) Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth century.

(*c.*) Mediæval French Philosophy.

II. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.

III. The Eighteenth Century; Voltaire; The Encyclopédie.

IV. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy: Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

V. Political Philosophy: La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

As a result of his recent researches in Paris the Professor is able to put at the service of students in the Graduate School a large amount of rare and valuable material bearing upon the history of French philosophy.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several Departments of the Government and of Congress.

### Graduate School of German.

PROFESSOR SCHÖNFELD.

I. History of German Literature, with references to Oelmar, Scherer, Kurz, and König.

II. Critical study of the Nibelungenlied, Zarncke's edition.

III. Literature of the Renaissance and Reformation, with special reference to Erasmus, Ulrich von Hutten, Luther, Murner, Fischart.

IV. History of the Middle Ages, from the beginning of the migrations of peoples to the establishment of the Feudal System and the evolution of European States.

The grouping of studies and the range of research for the degrees, respectively, of Master of Arts and of Doctor of Philosophy subject to arrangement.

The archives of the National Capital will be utilized for research work.

### Graduate School of Philosophy.

PROFESSOR STERRETT and PROFESSOR HARRIS.

I. Aristotle's Ethics and Politics.

II. The Ethical Theories of Hobbs, Bentham, Mill, and Spencer.

III. The Ethics of Kant and Hegel's Rechtsphilosophie.

IV. Kant's Critique of the Pure Reason and his Critique of the Judgment.

V. Hegel's Logik and Philosophie des Geistes.

VI. The Philosophy of Religion, Hegel and Pfleiderer.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Other equivalent courses may be concerted with the Professor in charge.

PROFESSOR WILLIAM T. HARRIS,
Commissioner United States Bureau of Education.

Dr. HARRIS will coöperate with Dr. STERRETT in carrying out certain of the courses above outlined, and will offer special courses in—

1. The exposition of Hegel's Æsthetik;
2. The exposition of Hegel's Philosophy of History; and
3. The History of Philosophy:
   *a.* The relation of Greek to German Philosophy.
   *b.* German Philosophy from Kant to Hegel.

## PRESIDENT WELLING.

### FOR THE DEGREE OF MASTER OF ARTS.

I. The historical significance of the so-called "Quarrel of the Ancients and the Moderns" in the 17th century, with critical references under this head to the writings and influence of Fontenelle, Perrault, Pascal, Boileau, Sir William Temple, Wotton, Bentley, Dean Swift, Boyle, and others. Rigault's "Histoire de la Querelle des Anciens et des Modernes" will be used as a literary guide-book in the conduct of this investigation, which, however, will have for its main object to prompt an original inquiry into the sources of the philosophical idea of human progress. Or—

II. The specific contributions made by the Government of the United States to the improvement of International Law: A critical study and amplification of Wharton's Digest, with an original thesis on the "Right of Asylum," historically and theoretically considered.

### FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Analytic investigations will here be combined with a study of synthetic philosophies, and will comprise—

I. Original study and investigation in a formative epoch of history, such as—

*a.* The Conversion of the Roman Empire to Christianity.
*b.* The Rise and formation of the Temporal Power of the Papacy.
*c.* The Renaissance.
*d.* The Political Awakening in the 18th Century: Causes of the American and the French Revolutions.
*e.* The New Intellectual Awakening: The Rise and Influence of Modern Scientific Method.

Historical experts will be called to assist in directing the investigation of these epochs.

II. A Critique of the Philosophy of History, in the successive stages of its elaboration, from Epiphanius and St. Augustine to Hegel, Comte, and Draper. This critique of the formal philosophies of history will be checked at all points by the comparative method of anthropological science, and the student will be required to take Part II (Culturgeschichte) of the graduate course in Anthropology.

### Graduate School of Mathematics.

PROFESSOR GORE.

For the degree of Master of Arts: Higher Plane Curves (Salmon); Modern Higher Algebra (Salmon).

PROFESSOR HODGKINS.

For the degree of Master of Arts:

I. Differential Equations.
Johnson's Differential Equations.

II. Determinants.
Hanus' Determinants. Scott's Determinants.

III. Quaternions.
Hardy's Quaternions. Kelland and Tait's Quaternions.

### Graduate School of Solar Physics.

PROFESSOR FRANK H. BIGELOW.
Of the United States Weather Bureau.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Magnetism, Cosmical Electricity, and Magnetism, with their relations to Meteorology:

I. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots, and allied problems in solar physics, giving the grounds for the recent developments of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

II. COSMICAL ELECTRICITY AND MAGNETISM.—The two fields of force emanating from the sun, their mode of propagation through the æther, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

III. TERRESTRIAL MAGNETISM.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instru-

ments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

IV. METEOROLOGY.—The thermo-dynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

### Graduate School of Mathematical Physics.

PROFESSOR ALEXANDER S. CHRISTIE,
Of the United States Coast and Geodetic Survey.

Graduate studies for the degree of Doctor of Philosophy in Mathematical Physics:

The course will be based upon the *Traité de Physique Mathématique* of Emile Mathieu. This work deals with the methods of integration in mathematical physics, the theory of capillarity, the theory of the potential, with its applications to electricity and magnetism; the theory of electro-dynamics, and the theory of the elasticity of solid bodies.

### Graduate School of Theoretical Astronomy.

PROFESSOR EDGAR FRISBY,
Of the United States Naval Observatory.
PROFESSOR WILLIAM C. WINLOCK,
Of the Smithsonian Institution.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

I. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers' Method, Abhandlungen, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

II. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's Theoria Motûs. Books of reference, as above.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, Mécanique Céleste. An abstract should here be made for the initiation of the student into this most extensive subject. Books of reference: Laplace, Mécanique Céleste; Lagrange, Mécanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, &c.

### Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

### Graduate School of Chemistry.

PROFESSOR MUNROE.

Schemes of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE,
Chief Chemist of the United States Geological Survey.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY,
Chief Chemist of the Department of Agriculture.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ,
Of the Bureau of Animal Industry.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artificial media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

### Department of Zoölogy.

PROFESSOR GILL, Head of Department,
Honorary Curator in the Smithsonian Institution.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

### Graduate School of Anthropology.

DR. OTIS T. MASON,
Curator in the United States National Museum.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in our best colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, Mécanique Céleste. An abstract should here be made for the initiation of the student into this most extensive subject. Books of reference: Laplace, Mécanique Céleste; Lagrange, Mécanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, &c.

### Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

### Graduate School of Chemistry.

PROFESSOR MUNROE.

Schemes of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE,
Chief Chemist of the United States Geological Survey.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY,
Chief Chemist of the Department of Agriculture.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ,
Of the Bureau of Animal Industry.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artificial media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

### Department of Zoölogy.

PROFESSOR GILL, Head of Department,
Honorary Curator in the Smithsonian Institution.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

### Graduate School of Anthropology.

DR. OTIS T. MASON,
Curator in the United States National Museum.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in our best colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

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The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

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The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, and Lang are used as text, with readings in the journals of the four great Anthropological societies.

### Comparative Osteology and Artistic Anatomy.

PROFESSOR D. K. SHUTE.

The special studies in this branch comprise—

I. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations (especial attention to be given to the subject of Homologies); the Human Form and its Variations (the latter as affected by occupation, age, sex, disease, etc.).

II. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superfices of the Living Model as will enable the Artist to understand the Statics and Kinetics of the Human Body; Methods of studying the Proportions of the Human Body, etc.

### Graduate School of Meteorology.

PROFESSOR ABBE,
Of the United States Weather Bureau.

The following scheme of studies in Meteorology, subject to arrangement between the teacher and his pupils, is offered for the degree of Doctor of Philosophy:

I. Practical meteorology; the daily weather chart; the empiric laws of weather changes as depending on meteorological data, and the arrangement of continents, plateaus, mountains, oceans, etc.; weather types and typical weather charts; prediction of daily weather and seasonal climates; verification of predictions.

TIME.—About forty lectures and at least five hours a week additional, in verifying old laws and studying new ones, in making and verifying predictions.

CONCOMITANT STUDIES.—Methods of chart projection; experimental laboratory work in both steady and discontinuous motions of fluids and gases; mathematical and experimental electricity; the laws of refraction and interference of light; elementary hydrodynamics and thermodynamics; differential equations and definite integrals; the German language.

II. Theoretical meteorology. Insolation. The absorption, conduction, and radiation of heat by the air and the earth. The thermo-dynamics of the atmosphere; the graphic methods of Herz and Bezold. Convective

equilibrium, as applied to the atmosphere of the sun by Lane, and to that of the earth by Sir William Thomson (Lord Kelvin) and his successors. Motion on a rotating globe; Ferrel's and other simple approximate relations between baric gradients and the wind and temperature; Ferrel's general circulation of the atmosphere and his cyclones and pericyclones and tornados. Galton's cyclone and anti-cyclone. Fourier's most general equations of gaseous motions. Oberbeck's general circulation. Helmholtz's horizontal rolls. The investigations of Diro Kitao, Guldberg and Mohn, Marchi, Boussinesq, A. Poincaré, Sprung, Siemens, Moeller, Ritter, and others into the motions of the atmosphere. Viscosity and discontinuous movements. The possible special solutions of the general equations of fluid motions that apply to the true atmospheric circulation, both on the earth and on the other planets. Atmospheric tides; theories of Laplace, Ferrel, Rayleigh, Margules, A. Poincaré. Theories of atmospheric electricity.

TIME.—Eighty lectures and an additional four hours a week given to special reading and investigation and to the preparation of the final thesis, as closing the four years' course.

CONCOMITANT STUDIES.—Riemann's "Differential Gleichungen;" Auerbach's "Hydrodynamics;" Lamb's "Fluid Motions" (new edition); physical laboratory work in gaseous motions, optical and electrical phenomena.

For Undergraduate Studies in Meteorology, see under head of "Corcoran Scientific School."

### Graduate School of Geology.

PROFESSOR MERRILL,
Curator in United States National Museum.

This School offers facilities for advanced study in physical geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course as planned presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitative chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

During the first year the student may devote his time largely, if necessary, to perfecting himself in methods, to general work in the laboratory and in the field, to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote himself to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be modified to suit individual cases in order that the student be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to the subjects of strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

### Graduate School of Civil Engineering and Applied Mathematics.

PROFESSOR FAVA.

Students holding the degree of B. S. in Civil Engineering (Course II) of the Corcoran Scientific School or its equivalent can obtain the degree of C. E. by pursuing studies in this Department for one year, as shown below:

The studies will embrace course 10 in the Department of Applied Mathematics of the Corcoran Scientific School, courses 16, 18, 13, and 14 in the Department of Engineering, and course 9 in the Department of Chemistry of the same school; also the law of contracts, political economy, and the elements of business practice. According to personal option, either Mechanical Engineering course 4 of the Corcoran Scientific School in a

mechanical direction, or Engineering courses 15, 16, and 17 of the same school, are recommended. Owing to the large field for the employment of engineers in Spanish-American countries, the Spanish language is recommended for study.

Besides these studies, a complex practical problem of a certain magnitude is given to the applicants for the degree of Civil Engineer immediately after they have obtained the degree of B. S. in Course II. This problem is to be solved during the following year as thesis work. The candidate is placed in the same position as the practising engineer; he has to collect his own data, make his surveys, and is allowed to draw his information from all available sources; but he is expected to furnish a comprehensive report and exhibits, drawings, estimates, etc., which will be complete, and throughout satisfactory as to contents as well as to form.

The subject selected is generally one of the great engineering problems of the day, either in the District of Columbia or outside. The subjects for graduation during the last three years have been: "A New Sewerage System for Washington City;" "A New Water Supply System for the District of Columbia;" "The Railroad Terminal Problem in Washington City;" "The Reconstruction of the Chesapeake and Ohio Canal with regard to protection from floods;" "The Utilization of the Water Power at the Great Falls of the Potomac River for the production and supply of pneumatic power for street railroads, elevators, ventilation, and industrial purposes for the city of Washington." (For prizes for thesis work, see page 89.)

### Applied Mathematics.

The degrees of M. S. and Ph. D. can be obtained through studies in this Department in the following directions:

I. *Geometry of position*, developed by projective methods, based on the works of v. Staudt, Moebius, Steiner, Poncelet, etc. Courses 2 of the Department of Applied Mathematics of the Corcoran Scientific School and 1 to 5 of the Department of Mathematics, of the same school, and a knowledge of the German and French languages are necessary preliminaries, but the knowledge of advanced mathematics, especially of the works of Chasles, Plücker, Salmon, Hesse, Cremona, and others will greatly facilitate the study of geometry of position.

II. *Graphic Statics.*—This science, brought to a high degree of development by the work of Culmann, can be studied with either of two objects in view:

*a.* As a part of applied mechanics, when the aim is to develop new methods of calculating mechanical phenomena, such as elastic deflections,

deformation of beams and elastic arcs, higher grade moments, properties of certain structures, etc.; also to apply graphostatical methods to the determinations of stresses and calculation of parts of machinery. In this direction the works of Koechlin, W. Ritter, Du Bois, "Graphic Statics," Reuleaux, and parts of Culmann are recommended for study. The German and French languages and courses 2, 6, 8, and 10 (Descriptive Geometry, Technical Mechanics, etc.) of the Department of Applied Mathematics of the Corcoran Scientific School are necessary.

*b.* As a part of Analytical Mechanics, based on geometry of position, the works of W. Ritter and Culmann will be more especially studied. The same prerequisite as for course *a*, with the addition of geometry of position, are necessary, and a thorough knowledge of advanced mathematics, especially determinants (Plücker's coördinates), etc., will be put in requisition.

III. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Ritter, Rankine, Bresse, etc. Courses 6 and 8 of the Department of Applied Mathematics of the Corcoran Scientific School, as well as the German and French languages, are required.

Other courses in various branches of applied mathematics, based on the studies scheduled in the Department of Applied Mathematics of the Corcoran Scientific School, can be arranged for on request.

### Graduate School of Electrical Engineering.

ASSISTANT PROFESSOR LEWIS.

Students having obtained the degree of B. S. in Electrical Engineering (Course III) in the Corcoran Scientific School or its equivalent will receive the degree of Electrical Engineer upon pursuing a course for one year in the Graduate School, embracing the following studies:

1. Advanced laboratory work.
2. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.
3. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, estimate of cost, etc.

Concomitant studies in German and French, the Spanish language, higher mathematics, and advanced machine design, physics, and chemistry are recommended.

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* shall close at least six weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least four weeks before the date of commencement."

## STUDENTS.

### Candidates for the Degree of Master of Science.

| Name. | Residence. | Topic. |
|---|---|---|
| Anna S. Hazelton,<br>B. S., 1892, Columbian. | D. C., | Mathematics. |
| Jessie Claire McDonald,<br>B. S., 1888, Wellesley. | D. C., | Philosophy of History. |
| Stephen C. Miller,<br>M. D., 1884, Columbian.<br>Phar. D., 1888, Howard Univ. | Minn., | Chemistry. |
| Augusta M. Pettigrew,<br>M. D., 1891, Columbian. | D. C., | German Literature and History. |
| Harry Albert Pressey,<br>B. S., 1893, Columbian. | Maine, | Physics. |
| Herbert Louis Rice,<br>B. S., 1893, Columbian. | Ill., | Quarternions. |
| Oscar John Schneider,<br>B. S., 1893, Columbian. | Wis., | Chemistry. |

### Candidates for the Degree of Master of Arts.

| Name. | Residence. | Topics. |
|---|---|---|
| Edmund Clark Hudson,<br>A. B., 1882, Hiawassee. | Tex., | Advanced English. |
| E. Hilton Jackson,<br>A. B., 1891; LL. B., 1892.<br>LL. M., 1893, Columbian. | Va., | International Law. |
| John Scott Johnson,<br>B. S., 1893, Columbian. | Tex., | Political Philosophy. |

| Name. | Residence. | Topics. |
|---|---|---|
| Anna Madeleine Letterman, | D. C., | Advanced English. |
| 1892, Normal College, City of New York. | | |
| Frank Bowers Littell, | Penn., | Theoretical Astronomy. |
| Ph. B., 1891, Wesleyan, Middletown. | | |
| Mary McPherson, | D. C., | Economics. |
| A. B., 1893, Wellesley. | | |
| Henry Rogers Pyne, | Me., | Greek. |
| A. B., 1893, Columbian. | | |
| Frances Estelle Throckmorton, | D. C., | Latin. |
| A. B., 1893, Columbian. | | |

IN ATTENDANCE.

| | | |
|---|---|---|
| William Hamilton, | Penn., | Advanced English. |
| A. B., Moravian College, Bethlehem. | | |

**Candidates for the Degree of Doctor in Philosophy.**

| Name. | Residence. | Topics. |
|---|---|---|
| Edward Farquhar, | D. C., | Major, Grk.; Minors, Eng., Phil. |
| George Wesley Hamner, | Ala., | Major, Hist.; Minors, Ec., Anth. |
| A. B., 1882; A. M., 1885, Hiawassee. | | |
| LL. B., 1885, Univ. Alabama; LL. M., 1886, Georgetown. | | |
| Walter Scott Harshman, | Ohio, | Major, Theo., Ast.; Minors, P. Math., Math., Phys. |
| M. S., 1892, Columbian. | | |
| William Perry Hay, | D. C., | Major, Zoö.; Minors, Geol., Bot. |
| M. S., 1892, Butler Univ. | | |
| Albert Mayer Hilliker, | Minn., | Major, Phil.; Minors, Hist., Phil. |
| B. D., 1890, Seabury Divinity School. | | |
| Frank Hall Knowlton, | Md., | Major, Bot.; Minors, Zoö., Geol. |
| B. S., 1884; M. S., 1887, Middlebury. | | |
| Claude Augustus Oscar Rosell, | Penn., | Major, Chem.; Minors, Phys., Min. |
| A. M., 1881, Univ. Penn. | | |
| LL. B., 1886, Georgetown. | | |
| Ernest Lawton Thurston, | D. C., | Major, Ap. Math.; Minors, G. S., Calc. |
| C. E., 1893, Columbian. | | |

Students in Graduate School, . . . . . 24

### Recapitulation.

| | |
|---|---|
| Students in the Graduate School | 24 |
| Students of Law | 328 |
| Students of Medicine | 150 |
| Students of Dentistry | 44 |
| Students in Arts and Sciences (College and Scientific School) | 298 |
| Aggregate | 844 |
| Students in the Preparatory School | 85 |
| Total | 929 |

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### Geographical Distribution of University Students.

| | | | | | |
|---|---|---|---|---|---|
| Alabama | 5 | Maine | 14 | Rhode Island | 1 |
| Arkansas | 5 | Maryland | 40 | South Caroiina | 10 |
| California | 7 | Massachusetts | 19 | South Dakota | 1 |
| Colorado | 2 | Michigan | 10 | Tennessee | 12 |
| Connecticut | 8 | Minnesota | 10 | Texas | 14 |
| Delaware | 4 | Mississippi | 8 | Utah | 1 |
| Dist. of Columbia. | 316 | Missouri | 10 | Vermont | 5 |
| Florida | 3 | Montana | 3 | Virginia | 51 |
| Georgia | 11 | Nebraska | 5 | West Virginia | 14 |
| Idaho | 1 | New Hampshire | 4 | Wisconsin | 11 |
| Illinois | 27 | New Jersey | 9 | Wyoming | 3 |
| Indiana | 7 | New York | 62 | | |
| Indian Territory | 1 | North Carolina | 5 | Canada | 5 |
| Iowa | 15 | North Dakota | 1 | Chile | 3 |
| Kansas | 9 | Ohio | 34 | Japan | 1 |
| Kentucky | 8 | Oregon | 2 | | |
| Louisiana | 4 | Pennsylvania | 43 | Total | 844 |

## DEGREES CONFERRED IN 1893.

### Masters of Law.

| Name. | Residence. |
|---|---|
| John B. Abbott, | New Hampshire. |
| LL.B., Columbian University, 1892. | |
| Charles S. Albert, | Pennsylvania. |
| LL.B., Columbian University, 1892. | |
| Cyrus N. Anderson, | Mississippi. |
| LL.B., Columbian University, 1892. | |
| Wm. Du Val Brown, | District of Columbia. |
| LL.B., Columbian University, 1892. | |
| Thaddeus Cahill, | New York. |
| A. B. | |
| LL.B., Columbian University, 1892. | |
| W. F. Clyborne, | California. |
| LL.B., Columbian University, 1892. | |
| Charles F. Consaul, | Michigan. |
| LL.B., Columbian University, 1892. | |
| James A. Davidson, | New York. |
| LL.B., Columbian University, 1892. | |
| Walter W. Davis, | Kansas. |
| LL.B., Columbian University, 1892. | |
| Victor L. Dodge, | District of Columbia. |
| LL.B., Columbian University, 1892. | |
| E. Hayward Fairbanks, | Massachusetts. |
| B. S., Worcester Polytechnic Institute, 1887. | |
| LL.B., Columbian University, 1892. | |
| Theodore C. Fenton, | Pennsylvania. |
| Graduate United States Naval Academy, 1885. | |
| LL.B., Columbian University, 1892. | |
| D. Kelsey Fitzhugh, | District of Columbia. |
| A. B., Baylor University, 1887. | |
| LL.B., Columbian University, 1892. | |
| C. Eugene Foote, | Ohio. |
| LL.B., Columbian University, 1892. | |
| Richard A. Ford, | South Carolina. |
| LL.B., Columbian University, 1892. | |
| P. J. Galligan, | Iowa. |
| LL.B., Columbian University, 1892. | |

| Name. | Residence. |
|---|---|
| Alex. Grant,<br>LL.B., Columbian University, 1892. | Michigan. |
| J. Colfax Grant,<br>B. S., University of Minnesota, 1890.<br>LL.B., Columbian University, 1892. | Minnesota. |
| Charles J. Groseclose,<br>A. B., Roanoke College, 1882.<br>LL.B., Columbian University, 1892. | Virginia. |
| Henry A. Hayward,<br>LL.B., Columbian University, 1892. | Minnesota. |
| M. D. Hensey,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Daniel Higgins,<br>LL.B., Columbian University, 1892. | Utah. |
| Percy B. Hills,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| James C. Hooe,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Allan J. Houghton,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Harry P. Huddleson,<br>LL.B., Columbian University, 1892. | Missouri. |
| E. Hilton Jackson,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1892. | Virginia. |
| G. Sherman James,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| John E. Laskey,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| F. C. Lawyer,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Jesse B. K. Lee,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Walter I. Lembkey,<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| R. L. Lerch,<br>Graduate U. S. Naval Academy, 1883.<br>LL.B., Columbian University, 1892. | Ohio. |
| P. S. Lowry,<br>LL.B., National University, 1892. | Ohio. |

| Name. | Residence. |
|---|---|
| J. H. McElroy,<br>A. M., De Pauw University, 1891.<br>LL.B., Columbian University, 1892. | Illinois. |
| O. M. Mather,<br>LL.B., Columbian University, 1892. | Kentucky. |
| George H. Maxwell,<br>A. B., Syracuse University, 1888.<br>A. M., Syracuse University, 1891. | New York. |
| F. P. Mendenhall,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| John D. Morgan,<br>LL.B., Columbian University, 1892. | Washington. |
| Richard Nixon,<br>LL.B., Columbian University, 1892. | Louisiana. |
| Robert E. Parker,<br>LL.B., Columbian University, 1892. | California. |
| B. Kennon Peter,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Samuel N. Pond,<br>A. B., Yale, 1889.<br>LL.B., Columbian University, 1892. | Connecticut. |
| W. W. Poultney,<br>A. M., 1884.<br>B. C. E., 1886.<br>Ph. B., 1887.<br>LL.B., National University, 1890.<br>LL.M., National University, 1891. | Ohio. |
| J. Clarence Price,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| A. L. Richardson,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Martin A. Ryan,<br>LL.B., Columbian University, 1892. | Pennsylvania. |
| William J. Sandoz,<br>LL.B., Columbian University, 1892. | Louisiana. |
| William F. Shute, | District of Columbia. |
| John W. F. Smith,<br>LL.B., Columbian University, 1892. | District of Columbia. |
| Faber Stevenson,<br>LL.B., Columbian University, 1892. | Ohio. |

| Name. | Residence. |
|---|---|
| **Lauren** J. Taylor,<br>LL.B., Columbian University, 1892. | Kentucky. |
| **Aug.** B. Tolman,<br>LL.B., Columbian University, 1892. | Massachusetts. |
| **George** H. Walker,<br>LL.B., Columbian University, 1892. | Ohio. |
| **Victor** H. Wallace,<br>LL.B., Columbian University, 1892. | Georgia. |
| **Adolph** G. Wolf,<br>A. B., Johns Hopkins University, 1890.<br>LL.B., Columbian University, 1892. | District of Columbia. |
| **Robert** E. Woods,<br>A. B., Kentucky Military Institute, 1885.<br>A. M., Hartford College, 1889.<br>LL.B., Columbian University, 1892. | Kentucky. |
| **Henry** S. Woodward,<br>A. B., Yale, 1890.<br>LL.B., Columbian University, 1892. | District of Columbia. |

**Bachelors of Law.**

| Name. | Residence. |
|---|---|
| **A. P.** Anderson, | Colorado. |
| **T. H.** Anderson, | Kentucky. |
| **J. Walter** Barber, | Indiana. |
| **J. C.** Bell, | Colorado. |
| **O. R.** Blair, | New York. |
| **J. C.** Bowen, | Michigan. |
| **George** F. Burba, | Kentucky. |
| **James** W. Byler, | Missouri. |
| **William** Irwin Campbell, | Pennsylvania. |
| **U. S.** Catlett, | Tennessee. |
| **Green** Clay, | Kentucky. |
| **Alden** M. Collins, | Virginia. |
| **A. V.** Cushman, | Massachusetts. |
| **George** F. Daggett, | Maine. |
| **Frank** E. Dennett,<br>A. B., Bowdoin College, 1890. | Maine. |
| **George** W. Drew, | District of Columbia. |
| **J. William** Ellis,<br>Ph. B., Cornell, 1890. | New York. |

| Name. | Residence. |
|---|---|
| E. L. Eustaphieve, | Virginia. |
| F. De Courcy Faust, | District of Columbia. |
| James A. Finch, | New York. |
| L. H. Finney, Jr., | Virginia. |
| Albert F. Flint, | District of Columbia. |
| Charles L. Frailey, | Massachusetts. |
| A. B., Columbian University, 1891. | |
| Paul Trapier Gadsden, | South Carolina. |
| A. M., University of the South, 1891. | |
| Charles D. Geddes, | Minnesota. |
| W. G. Gideon, | Missouri. |
| George I. Gilbert, | Illinois. |
| A. B., Doane College, 1890. | |
| Horace D. Goodale, | New York. |
| Milton LeRoy Gough, | District of Columbia. |
| Irving H. Griswold, | Ohio. |
| C. A. Hansmann, | Missouri. |
| William E. Harvey, | Missouri. |
| J. B. Henderson, Jr., | Missouri. |
| John A. Higley, | New York. |
| W. B. Hoggatt, | Indiana. |
| Charles E. Howe, | Pennsylvania. |
| Kepler Hoyt, | Wyoming. |
| A. B., University of Denver, 1891. | |
| Malcolm Hufty, | District of Columbia. |
| A. L. Jackson, | Texas. |
| Sydney R. Jacobs, | Wisconsin. |
| J. Burr Johnson, | Maryland. |
| Ernest W. Jones, | Ohio. |
| William H. Keller, | Pennsylvania. |
| A. B., Franklin and Marshall College, 1891. | |
| W. Maurice Kelly, | Oregon. |
| A. B., Princeton, 1891. | |
| Messmore Kendall, | Colorado. |
| F. Henry Kiser, | Wisconsin. |
| H. Lee Landers, | Maryland. |
| B. Peyton Legaré, | South Carolina. |
| B. S., Hobart College, 1888. | |
| J. Arthur Lynham, | Virginia. |
| Charles L. McCawley, | District of Columbia. |

| Name. | Residence. |
|---|---|
| J. T .Macey, | New York. |
| Walker D. Maclean, | Illinois. |
| A. B., Columbian University, 1891. | |
| R. L. Maddox, | Kentucky. |
| John T. Manier, | Mississippi. |
| B. S., A. and M. College of Mississippi, 1889. | |
| W. S. Maple, | Indiana. |
| R. Bowman Matthews, | Louisiana. |
| F. G. Mauldin, | South Carolina. |
| Graduate of U. S. Military Academy, 1890. | |
| George H. Maxwell, | New York. |
| George Clendenin Meigs, | District of Columbia. |
| Edward Menocal, | District of Columbia. |
| J. G. Meyers, Jr., | District of Columbia. |
| A. E. H. Middleton, | South Carolina. |
| R. F. Miller, | District of Columbia. |
| Charles S. Muir, | District of Columbia. |
| F. C. O'Connell, | Vermont. |
| William A. Pless, | Tennessee. |
| J. Garland Pollard, | Virginia. |
| John P. Pryor, | Texas. |
| Howard S. Reeside, | Pennsylvania. |
| Eugene Rhodes, | Kansas. |
| E. S. Rockwell, | New York. |
| Louis A. Rosafy, | North Carolina. |
| Morris E. Sabin, | Wisconsin. |
| Fountain F. Sams, | Illinois. |
| F. H. Sanford, | New York. |
| A. B., Yale, 1889. | |
| G. B. M. Schadmann, | Pennsylvania. |
| A. B., Racine College, 1886. | |
| A. M., Racine College, 1889. | |
| George H. Shields, Jr., | Missouri. |
| A. B., Princeton, 1891. | |
| William F. Shute, | District of Columbia. |
| Carroll W. Smith, | District of Columbia. |
| Felix O. Smith, | Vermont. |
| Bernard H. Taylor, | Illinois. |
| Frank Tharin, | South Carolina. |
| Corcoran Thom, | Maryland. |

| Name. | Residence. |
|---|---|
| J. H. Thomas, | Missouri. |
| T. C. Thomas, | Ohio. |
| Edward D. Tittmann, | Missouri. |
| William Sydenham Torbert, | Maryland. |
| S. Brooks Townes, | South Carolina. |
| Addison C. Townsend, | Nebraska. |
| Ralph R. Upton, A. B., Yale, 1892. | District of Columbia. |
| M. A. Watson, | California. |
| Willoughby L. Webb, | Maryland. |
| Harry Weber, | Illinois. |
| Irving C. Williams, A. B., Ursinus College, 1891. | Pennsylvania. |
| Walter A. Wilson, | Ohio. |
| A. L. Wood, | New Jersey. |
| Windom S. Woodworth, | Virginia. |
| E. A. Wright, C. E., Lehigh, 1889. | Pennsylvania. |
| Fred. A. Wright, A. B., Amherst, 1884. | Massachusetts. |
| Herbert Wright, M. E., Lehigh, 1890. | Pennsylvania. |

**Doctors of Medicine.**

| Name. | Residence. |
|---|---|
| Louisa M. Blake, | New Jersey. |
| Fred. M. Bogan, | District of Columbia. |
| Frank C. Boyle, | District of Columbia. |
| Isaac W. Brewer, | New York. |
| William C. Buck, | New Hampshire. |
| James R. Church, | District of Columbia. |
| Robert A. Daniel, | District of Columbia. |
| Cornelius A. Harper, | Wisconsin. |
| Deane C. Howard, | Massachusetts. |
| Lincoln Johnson, | New York. |
| Fred. F. Jones, | Ohio. |
| James T. Jones, | District of Columbia. |
| Arthur Jordan, | California. |
| Cassius M. Ketcham, | Missouri. |
| Herbert D. Knapp, | Michigan. |

| Name. | Residence. |
|---|---|
| Van Buren Knott, | Iowa. |
| George W. Leadley, | New York. |
| David Lobo, M. D., | Venezuela. |
| Andrew J. Nelson, | Virginia. |
| Francis M. Nesmith, | New York. |
| Sofie A. Nordhoff, | Germany. |
| Clarence G. Probert, | Ohio. |
| Theodore W. Richards, | District of Columbia. |
| John H. Rindlaub, | Wisconsin. |
| Harry W. Rollings, | District of Columbia. |
| Edward G. Seibert, | Pennsylvania. |
| Fred. S. Towle, | Massachusetts. |
| Herbert S. Town, | Wisconsin. |
| Walter M. Wooster, | District of Columbia. |
| Margaret M. York, | Louisiana. |
| Charles L. Young, | Pennsylvania. |

**Doctors of Dental Surgery.**

| Name. | Residence. |
|---|---|
| C. W. Appler, | Maryland. |
| W. N. Cogan, | District of Columbia. |
| R. L. Nall, | Kentucky. |
| N. W. Pomeroy, | District of Columbia. |

**Masters of Arts.**

| Name. | Residence. |
|---|---|
| Eva Virginia Heth, B. S., 1891; A. B., 1892, Columbian University. | Virginia. |
| Mabel Nelson Thurston, A. B. 1891, Columbian University. | Rhode Island. |

**Bachelors of Arts.**

| Name. | Residence. |
|---|---|
| Charles Grinnell Cogley, | District of Columbia. |
| Mary Charlotte Priest, | District of Columbia. |
| Henry Rogers Pyne, | Maine. |
| Frances Estelle Throckmorton, | District of Columbia. |

**Bachelors of Science.**

| Name. | Residence. |
|---|---|
| George Vose Chandler, | District of Columbia. |
| Edna Anne Clark, | New Hampshire. |
| Lucy Edith Cogley, | District of Columbia. |
| Joseph Herbert Ford, | District of Columbia. |
| John Scott Johnson, | Texas. |
| Sarah Elizabeth Mason, | District of Columbia. |
| Daisy M. Orleman, | District of Columbia. |
| M. D., 1890, Columbian University. | |
| Annie Lewis Pierce, | District of Columbia. |
| Harry Albert Pressey, | Maine. |
| Herbert Louis Rice, | Illinois. |
| Oscar John Schneider, | Wisconsin. |

**Civil Engineer.**

| Name. | Residence. |
|---|---|
| Ernest Lawton Thurston, | District of Columbia. |

Total, . . . . . 211

# CATALOGUE

OF THE

# OFFICERS AND STUDENTS

OF

# THE COLUMBIAN UNIVERSITY,

WASHINGTON, D. C.

FOR THE ACADEMIC YEAR 1894–'95.

---

FROM THE UNIVERSITY PRESS.

---

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1895.

# CALENDAR FOR 1894.

### SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | -- | -- | -- | -- | -- | -- |

### OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

# CALENDAR FOR 1895.

### JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

### APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | -- | -- | -- | -- | -- | -- |

### JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

### SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

### DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1896.

### JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| -- | -- | -- | -- | -- | -- | -- |

### MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

### JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

# CATALOGUE

OF THE

# OFFICERS AND STUDENTS

OF

# THE COLUMBIAN UNIVERSITY

WASHINGTON, D. C.,

FOR THE ACADEMIC YEAR 1894–'95.

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FROM THE UNIVERSITY PRESS.

---

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1895.

## KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a center.

A—The main building of the University, southeast corner 15th and H streets N.W.
B—The Preparatory School.
C C C C—Parcels of ground belonging to the University.
D—The Medical and Dental School building.

**Libraries numbered in the order of their proximity to the University.**

*Within less than a five or six mintues' walk:*

1. Library of Department of Labor, 8,000 volumes.*
2. " " Department of Justice, 30,000 "
3. " " Treasury Department, 22,000 "
3. " " Light-House Board, 4,000 "
4. " " Bureau of Statistics. 5,000 "
5. " " Geological Survey, 31,000 "
5. " " Bureau of Ethnology, 5,000 "
6. " " Corcoran Gallery of Art, 2,500 "
7. " " War Department, 37,000 "
7. " " Navy Department, 25,000 "
7. " " Department of State, 50,000 "
7. " " War Records Office, 2,000 "
7. " " Hydrographic Office, 3,000 "
7. " " Nautical Almanac Office, 2,000 "
8. " " Museum of Hygiene, 10,500 "

*Within a five or ten minutes' ride by the street railway:*

9. Library of United States Patent Office, 50,000 volumes.
—. " " Interior Department, 12,000 volumes.
—. " " Post Office Department, 10,000 volumes.
10. " " Bureau of Education, 30,000 volumes.
11. " " Department of Agriculture, 20,000 volumes.
12. " " Army Medical Museum, 105,000 volumes.
13. " " United States National Museum, 16,000 volumes.
14. " " United States Weather Bureau, 11,000 volumes.

*Within a fifteen minutes' ride by the street railway:*

15. The Library of Congress, 700,000 volumes.
15. The Library of the United States Supreme Court, 80,000 volumes.
15. The Library of the Smithsonian Institution, 250,000 volumes.
16. Site of the new Congressional Library.
17. Library of the United States Coast and Geodetic Survey, 12,000 volumes.
18. Site of the old United States Naval Observatory.

*Within a thirty minutes' ride by the street railway:*

**Library** of the new United States Naval Observatory (not indicated on map), 13,000 **volumes.**

---

* Number of volumes July 1, 1893.

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# UNIVERSITY CALENDAR.

## Current Academic Year, 1894-'95.

1894.

| | | |
|---|---|---|
| Sept. | 21. 22. Examinations for admission to College. | Friday. Saturday. |
| Sept. | 24.—First College Term begins. | Monday. |
| Sept. | 24.—First Term of Preparatory School begins. | Monday. |
| Oct. | 1.—Session of Medical School begins. | Monday. |
| Oct. | 2.—Session of Scientific School begins. | Tuesday. |
| Oct. | 3.—Session of Law School begins. | Wednesday. |
| Oct. | 4.—Session of Graduate School begins. | Thursday. |
| Nov. Dec. | 29. 1. Thanksgiving Recess. | |
| Dec. | 5.—Annual Meeting of the Alumni. | Monday. |

Dec. 24-Jan. 1, 1895.—Christmas Recess.

1895.

| | | |
|---|---|---|
| Jan. | 17.—First Term Examinations of College begin. | Thursday. |
| Jan. | 24. First Term Examinations of Scientific School begin. | Thursday. |
| Feb. | 1. Second Term of College and Corcoran School begins. | Friday. |

Apr. 12-15.—Easter Recess.

| | | |
|---|---|---|
| Apr. | 30.—Commencement of Dental School. | Tuesday. |
| May | 2.—Commencement of Medical School. | Thursday. |
| May | 6. Examinations for Degrees in the Graduate School closed. | Monday. |
| May | 8. Examinations for Degrees in the College and the Scientific School begin. | Wednesday. |
| May | 20. Reports of Examinations for Degrees in the Graduate School to be rendered. | Monday. |
| May | 21. Examinations for Degrees in Law School completed. | Tuesday. |
| May | 22. Examinations for Degrees in College and Scientific School to be completed. | Wednesday. |
| May | 27. Second Term Examinations of College and Scientific School begin. | Monday. |

1895.

| | | |
|---|---|---|
| May | 29. Reports on Examinations for Degrees in College and Scientific School to be rendered. | Wednesday. |
| May | 30.—Decoration Day, holiday. | Thursday. |
| June | 1. Competitive Examination of Candidates for High School Scholarships. | Saturday. |
| June | 9.—Baccalaureate Sermon. | Sunday. |
| June | 10.—Commencement of Graduate School. | Monday. |
| June | 10.—Commencement of Preparatory School. | Monday. |
| June | 10.—Exhibition Day. | Monday. |
| June | 11.—Commencement of Law School. | Tuesday. |
| June | 12. Commencement of College and Scientific School. | Wednesday. |
| June | 17.—Annual Meeting of the Corporation. | Monday. |

## Academic Year, 1895-'96.

1895.

| | | |
|---|---|---|
| Sept. | 20. Examination of Candidates for Admission to | Friday. |
| | 21. College, Medical and Dental Schools. | Saturday. |
| Sept. | 23.—College Session begins. | Monday. |
| Sept. | 23.—Session of Preparatory School begins. | Monday. |
| Oct. | 1.—Session of Medical School begins. | Tuesday. |
| Oct. | 1.—Session of Dental School begins. | Tuesday. |
| Oct. | 2.—Session of Scientific School begins. | Wednesday. |
| Oct. | 3.—Session of Law School begins. | Thursday. |
| Oct. | 4.—Session of Graduate School begins. | Friday. |
| Nov. 28-30.—Thanksgiving Recess. | | |
| Dec. | 4.—Annual Meeting of Alumni. | Wednesday. |
| Dec. 24-Jan. 5, 1896.—Christmas Recess. | | |

1896.

| | | |
|---|---|---|
| Jan. | 20.—First Term College Examinations begin. | Monday. |
| Jan. | 23. First Term Scientific School Examinations begin. | Thursday. |
| Feb. | 3. Second Term of College and Scientific School begins. | Monday. |
| Feb. | 22.—Washington's Birthday. | Holiday. |
| Apr. | 3-6.—Easter Recess. | |
| Apr. | 28.—Commencement of Dental School. | Tuesday. |
| Apr. | 30.—Commencement of Medical School. | Thursday. |
| May | 4. Examinations for Degrees in Graduate School to be completed. | Monday. |

1896.

| | | | |
|---|---|---|---|
| May | 18. | Reports of Examinations for Degrees in the Graduate School to be rendered. | Monday. |
| May | 19. | Examinations for Degrees in Law School to be completed. | Tuesday. |
| May | 20. | Examinations for Degrees in College and Scientific School to be completed. | Wednesday. |
| May | 25. | Second Term Examinations in College and Scientific School begin. | Monday. |
| May | 30. | —Decoration Day. | Holiday. |
| June | 3. | —Doctorate Disputation. | Wednesday. |
| June | 7. | —Baccalaureate Sermon. | Sunday. |
| June | 8. | —Commencement of Graduate School. | Monday. |
| June | 8. | —Commencement of Preparatory School. | Monday. |
| June | 8. | —Exhibition Day. | Monday. |
| June | 9. | —Commencement of Law School. | Tuesday. |
| June | 10. | Commencement of College and Scientific School. | Wednesday. |
| June | 15. | —Annual Meeting of Corporation. | Monday. |

# THE PREPARATORY SCHOOL.

## CALENDAR.

CURRENT SCHOOL YEAR.

| | | | |
|---|---|---|---|
| 1894. | Sept. | 17–22. | —Examination of new scholars. |
| | Sept. | 24. | —The First Term commences. |
| | Oct. | 1. | —Regular Marks begin. |
| | Oct. | 27. | —First Monthly Report rendered. |
| | Nov. | 24. | —Second Monthly Report rendered. |
| | Nov. | 29–30. | —Thanksgiving Holidays. |
| | Dec. | 22. | —Third Monthly Report rendered. |
| | Dec. | 24. | Christmas Holidays. |
| 1895. | Jan. | 1. | Christmas Holidays. |
| | Jan. | 19. | —Fourth Monthly Report rendered. |
| | Jan. | 21–31. | —Intermediate Examinations. |
| | Feb. | 1. | —Marks of Second Term begin. |
| | Feb. | 22. | —Washington's Birthday—holiday. |

1895. March 2.—Fifth Monthly Report rendered.
March 30.—Sixth Monthly Report rendered.
April 12–15.—Good Friday and Easter Monday—holidays.
April 27.—Seventh Monthly Report rendered.
May 25.—Eighth Monthly Report rendered.
May 27. } Final Examinations.
June 7. }
June 10.—Public Closing Exercises.

NEXT SCHOOL YEAR.

1895. Sept. 16–21.—Examination of new scholars.
Sept. 23.—The First Term commences.
Sept. 30.—Regular Marks begin.
Oct. 28.—First Monthly Report rendered.
Nov. 28.—Second Monthly Report rendered.
Nov. 28. } Thanksgiving holidays.
Nov. 29. }
Dec. 23.—Third Monthly Report rendered.
Dec. 24. } Christmas holidays.
1896. Jan. 2. }
Jan. 20.—Fourth Monthly Report rendered.
Jan. 20–31.—Intermediate Examinations.
Feb. 3.—Marks of Second Term begin.
March 2.—Fifth Monthly Report rendered.
March 31.—Sixth Monthly Report rendered.
April 3–6.—Good Friday and Easter Monday—holidays.
April 27.—Seventh Monthly Report rendered.
May 25.—Eighth Monthly Report rendered.
May 25. } Final Examinations.
June 5. }
June 8.—Public Closing Exercises.

## EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

### Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief Justice of the United States, and the Attorney General are honorary members of its Board of Trustees. Two Associate Justices of the Supreme Court of the United States and two Associate Justices of the Supreme Court of the District of Columbia are active members of its Law Faculty. The Directors of the Bureau of Ethnology and the United States National Museum are Trustees of the University. The Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, and the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The pathology of mental diseases is taught in the Medical School by one of the physicians in charge at the Government Hospital for the Insane. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the National Geographic Society and the President of the Anthropological Society of Washington are members of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University. The President of the Chemical Society is the Professor of Chemistry in the University. The President of the Columbian Engineering Society is the Professor of Civil Engineering in the Corcoran Scientific School and in the Graduate School of the University.

### Other Scientific Facilities in Washington.

Washington is as much the scientific center as it is the legislative, executive, and judicial center of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate of more than 1,200 persons. The Anthropological Society (Hon. John W.

Powell, President), numbering, according to the last Scientific Directory, 248 active, 34 corresponding, and 23 honorary members, meets fortnightly or oftener, on Tuesday evenings. The Biological Society (General George M. Sternberg, U. S. A., President), with 171 active and 37 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society (Dr. Charles E. Munroe, President), with 101 members, holds meetings on the second Thursday of each month. The Entomological Society (Professor William H. Ashmead, President), with 31 resident and 95 corresponding members, meets on the first Thursday of each month. The National Geographic Society (the Hon. Gardiner G. Hubbard, LL.D., President), with 1,101 members, meets every Friday. The Philosophical Society (Professor W. H. Dall, President), with 167 active and 66 non-resident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society (Professor J. Howard Gore, Chairman) meets on Wednesday, at irregular intervals, in the mathematical lecture-room of the Columbian University. The Society of Philosophical Inquiry (Professor J. MacBride Sterrett, President) meets every Tuesday afternoon during term time in the philosophical lecture-room of the Columbian University. The Columbian Engineering Society (Professor Francis R. Fava, Jr., C. E., President) meets on the first and the third Tuesday of each month in the Engineering Hall of the University. The Philological Association of the Columbian University meets, at the call of the Secretary, in the Latin recitation-room of the University. The Geological Society (Professor G. K. Gilbert, President), comprising 119 active members and 37 corresponding members, meets on the second Wednesday of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences (Dr. Wolcott Gibbs, President) meets annually in Washington in April.

During the Christmas holidays the lecture halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society, for the purposes of their annual meetings. As many as eighteen national or international societies held their annual meetings in the University building during the year 1894–'95. These meetings are open to the students of the University.

# THE UNIVERSITY CORPORATION.

THE REV. SAMUEL H. GREENE, D. D.,
*President of the Corporation.*

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J. O. WILSON, ESQ., 1439 Massachusetts Avenue, N. W.
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EDWARD M. GALLAUDET, LL.D., Kendall Green, D. C.
GARDINER G. HUBBARD, LL.D., 1328 Connecticut Avenue, N. W.
G. BROWN GOODE, LL.D., United States National Museum.
OTIS T. MASON, PH. D., 1751 P Street, N. W.
THE REV. SAMUEL H. GREENE, D. D., 1320 Q Street, N. W.
THEODORE W. NOYES, LL.M., 1616 S Street, N. W.
THE REV. CHARLES A. STAKELY, D. D , 1414 16th Street, N. W.
THE HON. J. L. M. CURRY, LL.D., 1736 M Street, N. W.
CHARLES W. NEEDHAM, ESQ., 1730 16th Street, N. W.
J. J. DARLINGTON, LL.D., 903 13th Street, N. W.
SAMUEL W. WOODWARD, ESQ., Wyoming Avenue, N. W.
ROBERT H. MARTIN, ESQ., 1719 S Street, N. W.

ROBERT H. MARTIN, *Secretary-Treasurer.*

## Standing Committees of the Corporation for the Academic Year 1894–'95.

*Executive Committee.*

Messrs. GREENE, GALLAUDET, MARTIN, and WOODWARD.

*Committee on Nominations to Fill Vacancies in the Corporation.*

Messrs. STAKELY and WOODWARD.

*Committee on the Preparatory School.*

Messrs. WILSON, MASON, and WOODWARD.

*Committee on the Columbian College.*

Messrs. STAKELY, GREENE, and DARLINGTON.

*Committee on the Medical and Dental Schools.*

Messrs. NOYES, CURRY, and MARTIN.

*Committee on the Law School.*

Messrs. MATTINGLY, CURRY, and NEEDHAM.

*Committee on the Corcoran Scientific School.*

Messrs. POWELL, HUBBARD, and MASON.

*Committee on the School of Graduate Studies.*

Messrs. GOODE and GALLAUDET.

*Auditing Committee.*

Messrs. WILSON and NEEDHAM.

*Committee on Increase of University Endowment.*

Messrs. LEVERING, GREENE, NOYES, ELLIS, and HUBBARD.

# ALUMNI ASSOCIATION

OF THE

# COLUMBIAN UNIVERSITY.

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**Officers, 1894–'95.**

*President:*

JESSE H. WILSON, A. B., LL.B.

*Vice-Presidents:*

WM. E. HANDY, M. D.

C. A. BRANDENBURG, LL.M.

*Secretary:*

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JESSE H. WILSON, A. B., LL.B., *Chairman.*

C. A. BRANDENBURG, LL.M.
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H. L. HODGKINS, A. M., Ph. D.
JOHN B. LARNER, LL.B.
GEORGE STEIGER, M. S.
A. S. WORTHINGTON, LL.B.

# ENDOWMENTS.

The value of the University's property and endowments is estimated at about $1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of $250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and Lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said corporation by its original name."

# FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them and called the —— Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them as an endowment for the support of (the School of ——), (a Professorship of ——), (a Lectureship in the School of ——), (a Fellowship in the School of ——) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special signification in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors. The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corcoran Scientific School a separate specialty is called a "Department."

DIRECTORY

OF THE

# OFFICERS OF INSTRUCTION AND GOVERNMENT*

OF THE

# COLUMBIAN UNIVERSITY.

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ACADEMIC YEAR 1894–'95.

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**SAMUEL HARRISON GREENE**, *President of the University.*

A. B., 1873, A. M., 1875, D. D., 1891, Colgate University; Graduate Hamilton Theological Seminary, 1875; D. D., 1883, Norwich University; D. D., 1891, Rochester University; Superintendent of Public Schools of Montgomery, Vermont, 1866–'67; Trustee of the Columbian University, 1889; Vice-President of Corporation, 1894. 1320 Q Street, N. W.

**CLEVELAND ABBE**, *Professor of Meteorology.*

A. B., 1857, A. M., 1860, Ph. D., 1891, New York City College; LL.D., University of Michigan, 1889; Member of the National Academy of Sciences, Washington, 1879; Senior Professor of Meteorology, Army Signal Office, 1871–1892; U. S. Weather Bureau, 1892; Officier de l'Académie, Paris, 1889.
2017 I Street, N. W.

**CLEVELAND ABBE, JR.** { *Assistant in Meteorology.* / *Instructor in Physiography.*

A. B., Harvard University, 1894; Member of Geological Society of Washington, National Geographic Society, American Association for the Advancement of Science; Fellow of American Geographical Society. 2017 I Street, N. W.

**GEORGE N. ACKER**, *Clinical Professor of Medicine.*

A. B., 1872, A. M., 1874, Pennsylvania College; M. D., Columbian University, 1874, and University of Berlin, 1877; Attending Physician to the Children's Hospital and Garfield Memorial Hospital; Demonstrator of Practical Physiology, 1880–'81; Demonstrator of Pathological Histology, 1879–'93; Lecturer on Pathological Histology, 1879–'87. 913 Sixteenth Street, N. W.

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*Officers will please inform the Registrar of any changes desired in this Directory.

SAMUEL SHUGART ADAMS, *Clinical Professor of Diseases of Children.*

A. B., 1875, A. M., 1878, West Virginia University; M. D., University of Georgetown, 1879; Lecturer on Diseases of Children, University of Georgetown, 1879–'84; Professor of Theory of Practice of Medicine, National University, 1884–'92; Attending Physician to the Children's, the Garfield Memorial, and the Foundling Hospitals, and the Washington Home for Incurables; Consulting Physician to the Woman's Hospital; Professor of Clinical Pædiatrics, Columbian University, 1892; Chairman of the Committee of Arrangements of the Pan-American Medical Congress, 1893, and the Congress of American Physicians and Surgeons, 1894; Secretary of the American Pædiatric Society and of the Medical Society of the District of Columbia; Consulting Physician to Sibley Memorial Hospital, and President of the Medical Staff. 1 Dupont Circle, N. W.

RAYMOND MACDONALD ALDEN, *Instructor in English.*

A. B., University of Pennsylvania, 1894. 1421 K Street, N. W.

LOUIS AMATEIS, *Professor of Fine Arts as Applied to Architecture.*

Gold Medalist, Royal Academy of Fine Arts, Turin. 1717 Nineteenth Street.

FRANK LLOYD AVERILL, *Assistant in Field Engineering.*

C. E., Columbian University, 1891. 1616 Fifteenth Street, N. W.

CHARLES EDWARD BARRY, *Professor of Architecture.*

Gaithersburg.

FRANK HAGAR BIGELOW, *Professor of Solar Physics.*

A. B., 1873, A. M., 1880, Harvard; Assistant at Cordova; Nautical Almanac Office, 1889; United States Weather Bureau, 1891. 1625 Massachusetts Avenue, N. W.

JONAS EMIL BLOMÉN, *Instructor in Physics.*

Ph. C., Athenæum College, Stockholm, Sweden, 1880; Graduate Military Engineering Academy, Stockholm, 1881; Commissioned Lieutenant of Engineers of the R. S. A., 1881; Director of the International Magnetic Survey at Upsala, 1882; Ph. D., Upsala University, 1884. 1639 Tenth Street, N. W

HENRY CARRINGTON BOLTON, *Lecturer on the History of Chemistry, Professor of Bibliography.*

A. M., Columbia College, 1862; Ph. D., Göttingen, 1866; Assistant in Analytical Chemistry, School of Mines (Columbia College), 1872; Professor of Chemistry, Woman's Medical College, New York, 1875; Professor of Chemistry, Trinity College, Connecticut, 1877; President New York Academy of Sciences, 1893. Cosmos Club.

ANDREW COYLE BRADLEY, *Lecturer on Criminal Law and on Criminal Pleading and Practice.*

LL.B., Harvard University, 1867; Associate Justice of the Supreme Court of the District of Columbia, 1889. 2013 Q Street, N.W.

CLARENCE A. BRANDENBURG, *Instructor in Practical Commercial Law.*

LL.B, 1888, LL.M., 1889, Columbian University. 2139 N Street, N.W.

DAVID J. BREWER, *Professor of the Law of Corporations.*

A. B., 1856, A. M., 1859, Yale College; LL.B., Albany Law School, 1858; Judge of Kansas District Court, 1865; Justice Supreme Court State of Kansas, 1871–'84; Judge Circuit Court of the United States, Eighth Circuit, 1884–'90; LL.D., Iowa College, 1885; Washburn College, 1888; Associate Justice Supreme Court of the United States, 1890; LL.D., Yale University, 1891. 1412 Massachusetts Avenue, N.W.

GLENN BROWN, *Lecturer on Sanitary Engineering.*

1536 I Street, N.W.

WILLIAM K. BUTLER, *Professor of Ophthalmology.*

A. M., 1879, M. D., 1882, Columbian University; Surgeon in Charge Lutheran Eye, Ear, and Throat Infirmary, Washington, D. C., 1890–'95.

1207 M Street, N.W.

BENJAMIN BUTTERWORTH, *Professor of the Law of Patents.*

LL.B., 1861, Cincinnati Law College; United States Commissioner of Patents, 1883–'85; Member 46th, 47th, 49th, 50th, and 51st Congresses.

407 T Street, N.W

WILLIAM P. CARR, *Professor of Physiology.*

M. D., Columbian University, 1883. 1103 Thirteenth Street, N.W.

IMMANUEL M. CASANOWICZ, *Lecturer on Ancient Statistics.*

B. D., Theological School of Basel, Switzerland, 1881; Instructor of Latin and Greek, 1881; Professor of Hebrew and Church History and Housefather, Theological School of Newark, N. J 1883–'87; Student of Semitic and Classical Philology and sometime Lecturer on Lost Biblical Hebrew at Johns Hopkins University, 1889–'92; Ph. D., Johns Hopkins University, 1892; Preparator of the literary work for the Exhibit of Religions at the United States National Museum, 1892. 1019 Tenth Street, N.W.

GEORGE VOSE CHANDLER, *Assistant in Mineralogy.*

B. S., Columbian University, 1893; Examiner United States Patent Office.

213 C Street, S. E.

THOMAS MAREAN CHATARD, *Lecturer on Chemical Engineering.*

A. B., 1867, A. M., 1869, LL.D., 1894, Mt. St. Mary's College, Maryland; S. B., Harvard College (L. S. S.), 1871; Instructor United States Navy Torpedo Station, Newport, R. I., 1870–'72; Instructor University of Pennsylvania, 1872–'74; Ph. D., University of Heidelberg, 1876; Chemist United States Geological Survey, 1883–'92. 1758 K Street, N.W.

ALEXANDER SMITH CHRISTIE, *Professor of Mathematical Physics.*

Chief of Tidal Division, United States Coast and Geodetic Survey, 1885–'93; LL.B., Columbian University, 1885; LL.M., National University Law School, 1888. 814 Eleventh Street, N.W.

CHARLES R. CLARK, *Demonstrator of Normal Histology.*

M. D., Columbian University, 1889. 1332 R Street, N. W.

WILLIAM LATHIM CLARK, *Assistant Demonstrator.*

D. D. S., Columbian University, 1892. 1315 M Street, N. W.

FRANK WIGGLESWORTH CLARKE, *Professor of Mineral Chemistry.*

S. B., Harvard, 1867: Instructor in Chemistry, Cornell University, 1869; Professor of Chemistry, Howard University, 1873–'74; Professor of Chemistry and Physics, University of Cincinnati, 1874; Chief Chemist United States Geological Survey, 1883; Honorary Curator of Minerals, National Museum, 1883; Member German Chemical Society; Corresponding Member British Association for the Advancement of Science. 1612 Riggs Place, N.W.

G. WYTHE COOK, *Clinical Professor of Medicine.*

M. D. 3 Thomas Circle, N. W.

WALTER S. COX, *Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.*

A. B., 1843, A. M., 1845, Georgetown College; LL.B., Harvard University Law School, 1847; LL.D., Columbian University, 1875; Associate Justice Supreme Court of the District of Columbia, 1879; Trustee of Corcoran Gallery of Art, 1888. 1636 I Street, N. W.

ANDREW FULLER CRAVEN, *Professor of Economics.*

LL.B., Chicago University, 1869; A. B., Harvard University, 1889; Ph. D., Johns Hopkins University, 1893. 1537 Fifteenth Street, N. W.

EDWARD Y. DAVIDSON, *Assistant Demonstrator of Anatomy.*

M. D., Columbian University, 1894. 1221 Tenth Street, N. W.

HENRY EDGAR DAVIS, *Lecturer on the History of Law.*

A. B., 1876, A. M., 1879, College of New Jersey (Princeton); LL.B., 1878, LL.M., 1879, Columbian University; Assistant Attorney of the District of Columbia, 1885–'89; Professor of Common Law Practice, Columbian University, 1888–'93. 1825 Jefferson Place, N. W.

R. B. DONALDSON, *Clinical Operator.*

D. D. S., Maryland Dental College, 1876; Honorary D. D. S, Baltimore College Dental Surgery, 1878. 1309 F Street, N. W.

WILLIAMS DONNALLY, *Clinical Operator.*

D. D. S., University of Michigan, 1880; Secretary Board of Dental Examiners for the District of Columbia, 1892–'93; President, 1893. 1022 Fourteenth Street, N. W.

JAMES H. ECKELS, *Lecturer on the National Banking System.*

Comptroller of the Currency. 1468 Rhode Island Avenue, N. W.

GEORGE HENRY EMMOTT, *Lecturer on the Civil Law.*

A. B. and LL.B., 1879, A. M., 1882, and LL.M., 1892, University of Cambridge (Eng.); sometime Associate and Lecturer on Roman and English Law in Victoria University (Eng.); Lecturer on English Law to the Birmingham (Eng.) Law Society, 1882–'85; now Professor of Roman Law and Comparative Jurisprudence in the Johns Hopkins University. Johns Hopkins University, Baltimore, Md.

EDWARD FARQUHAR, *Assistant Professor of English.*

Ph. D., Columbian University, 1894; Assistant in the United States Patent Office Library, 1865. Cosmos Club.

ELMER SELAH FARWELL, *Instructor in Thermodynamics and the Steam Engine.*

C. E., Rensselaer Polytechnic Institute. 1219 I Street, N. W.

FRANCIS RENATUS FAVA, *Professor of Civil Engineering.*

C. E., Polyt., Zürich, 1882; Mem. Am. Soc. C. E., 1890. 917 Sixteenth Street, N. W.

PETER FIREMAN, *Assistant in Chemistry.*

Graduate Classical Gymnasium at Charkov (Russia), 1881; Ph. D., Berne University (Switzerland), 1893. Gaithersburg.

WORTHINGTON C. FORD, *Instructor in Statistics and National Finance.*
Chief of United States Bureau of Statistics. Metropolitan Club.

EDWIN H. FOWLER, *Instructor in Topographical Drawing and Lecturer on Architectural Topography.*
B. S., 1878, Dartmouth College; Topographical Draughtsman U. S. Coast and Geodetic Survey. 1126 East Capitol Street.

FELIX FREYHOLD, *Assistant in Iron and Steel Construction.*
C. E., Lehigh, 1885. 236 First Street, S. E.

EDGAR FRISBY, *Professor of Astronomy.*
A. B., University of Toronto, 1863, and M. A., 1864; Acting Professor of Mathematics, Northwestern University, 1867; Assistant, United States Naval Observatory, 1868; Professor of Mathematics, United States Navy, 1878.
1607 Thirty-first Street, N. W.

THEODORE NICHOLAS GILL, *Professor of Zoölogy.*
A. M., 1865, M. D., 1866, Ph. D., 1870, LL.D., 1894, Columbian University.
National Museum.

HENRY SKINNER GOODALL, *Assistant Demonstrator of Anatomy.*
A. B., Williams College, 1887; M. D., Columbian University, 1890.
2006 H Street, N. W.

JAMES HOWARD GORE, *Professor of Mathematics and Geodesy.*
B. S., 1879, Ph. D., 1888, Columbian University; Civilian Expert U. S. Coast and Geodetic Survey, 1892; Chairman International Jury. Instruments of Precision, Columbian Exposition, 1893; Commissioner General of the United States to the International Exposition, Antwerp, Belgium, 1894; Commissioner General of the United States to the International Exposition, Amsterdam, 1895; Grand Cross of the Order of Leopold, 1895.
1521 New Hampshire Avenue, N. W.

ADOLPHUS WASHINGTON GREELY, *Professor of Geography.*
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Professor of English and of Anglo-Saxon.

JAMES HOWARD GORE, PH. D.,
Professor of Mathematics and of German and Secretary of the Faculty.

HOWARD L. HODGKINS, PH. D.,
Professor of Physics and Adjunct Professor of Mathematics.

LEE D. LODGE, PH. D.,
Professor of Political and Historical Philosophy and of French.

THE REV. JAS. MACBRIDE STERRETT, D. D.,
Professor of Intellectual and Moral Philosophy.

CHARLES E. MUNROE, PH. D.,
Professor of Chemistry.

ANTONIO M. SOTELDO, LL. D.,
Professor of Spanish.

WILLIAM ORDWAY PARTRIDGE,
Professor of the Fine Arts.

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H. CARRINGTON BOLTON, PH. D.,
Non-resident Lecturer on the History of Chemistry.

THE HON. WILLIAM L. WILSON, LL. D.,
Lecturer on American Economic Legislation.

THE HON. JOHN W. POWELL, LL. D.,
Lecturer on The History of Culture.

OTIS T. MASON, PH. D.,
Lecturer on The Origins of Culture.

E. HILTON JACKSON, A. M.,
Assistant in Latin.

HENRY R. PYNE, A. M.,
Assistant in Greek.

H. GRANT HODGKINS, A. B.,
Assistant in Mathematics.

RAYMOND M. ALDEN, A. B.,
Assistant in English.

EDWARD C. TOWNSEND,
Instructor in Elocution and Oratory.

GEORGE N. HENNING, A. B.,
Assistant in French.

BEVERLEY T. SENER, LL. M.,
Librarian and Registrar.

**Standing Committees of the Faculty.**

*Committee on Library.*

Professors LODGE, GORE, and SHUTE.

*Committee on Schedule.*

Professors HODGKINS, MONTAGUE, and MUNROE.

*Committee on Admissions.*

Professors HODGKINS, SHUTE, and MUNROE.

*Committee on Discipline.*

Professors SHUTE, LODGE, and HUNTINGTON.

*Committee on Distribution of Catalogues.*

Professors STERRETT, GORE, and HODGKINS.

*Committee on Scholarships.*

Professors MONTAGUE, GORE, and LODGE.

*Committee on Revision of Studies.*

Professors MONTAGUE, HODGKINS, and GORE.

*Committee on Chapel Exercises.*

Professors HUNTINGTON, MONTAGUE, and MUNROE.

*Committee on Communications from Students.*

Professors GORE, MUNROE, and STERRETT.

*Committee on Special Students.*

Professors MUNROE, SHUTE, and LODGE.

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The College is open to students of both sexes.

The regular course of instruction is comprised in twelve schools, as follow:

I. SCHOOL OF ENGLISH: including English Philology, English Literature, Rhetoric, Logic, Elocution, General History, and Anglo-Saxon.

II. SCHOOL OF GREEK: including the Greek Language and Literature and the History of Greece.

III. SCHOOL OF LATIN: including the Latin Language and Literature and the History of Rome.

IV. SCHOOL OF FRENCH: including the French Language and Literature and the History of France.

V. SCHOOL OF SPANISH: including the Spanish Language and Literature and the History of Spain.

VI. SCHOOL OF GERMAN: including the German Language and Literature and the History of Germany.

VII. SCHOOL OF MATHEMATICS: including Pure Mathematics, Mechanics, and Astronomy.

VIII. SCHOOL OF CHEMISTRY: General, Inorganic and Organic Chemistry, Laboratory Practice, Qualitative and Quantitative Analysis.

IX. SCHOOL OF PHYSICS.

X. SCHOOL OF PHILOSOPHY.

XI. SCHOOL OF POLITICAL AND HISTORICAL PHILOSOPHY.

XII. SCHOOL OF THE FINE ARTS.

## School of English.

PROFESSOR SHUTE.
MR. ALDEN.

1. Instruction is given in the rhetorical principles of style and invention, with frequent written exercises and the critical study of standard authors. Two hours a week.

Text-books: Genung's Rhetoric and Rhetorical Analysis.

2. Instruction is given in the outlines of English History. One hour a week, first term.

Text-book: Thompson's History of England.

3. The Political and Constitutional History of the United States. One hour a week, second term.

Text-book: Johnston's American Politics.

4. The History of English Literature is studied, with readings from representative authors, special emphasis of important periods, and original investigation on the part of students, approximating to the "Seminary system." Two hours a week, first term; and one hour a week, second term.

Text-books: Shaw's English Literature, Hudson's Shakespeare, Dowden's Shakespeare Primer, Morley's Victorian Literature.

5. Instruction is given in the principles of pure and applied Logic, and application of these principles is required in analyzing and reconstructing ordinary forms of argumentation in select authors. One hour a week, second term.

Text-book: Jevons's Logic.

6. Instruction is given in the Anglo-Saxon Language and Literature. One hour a week.

Text-books: Sweet's Anglo-Saxon Primer and Béowulf.

7. Instruction is given as to the origin, development, and present powers of the English language. Two hours a week, first term.

Text-book: Lounsbury's English Language.

8. Instruction is continued in Logic. Two hours a week, first term.

Text-book: Fowler's Inductive Logic.

9. Instruction is continued in special phases of English literature. Two hours a week, second term.

Text-book: Hunt's Ethical Teachings of Early English.

10. American literature is studied, with readings from representative authors, lectures by the instructor on special periods, original investigation by the students, and essays related to the course of study. Two hours a week, second term.

Text-book: Beers's American Literature.

11. Modern History. Two hours a week, first term.

Text-book: Mackenzie's History of the Nineteenth Century.

12. Criticisms of American Literature. Two hours a week, second term.

Text-book: Tyler's History of American Literature.

The members of the Freshman and Sophomore Classes prepare monthly essays on subjects related to their course of study, which are criticised by the instructor.

Instruction in elocution is given in the Freshman and Sophomore Classes by Mr. Edward C. Townsend.

For Graduate Courses in English, see under head of "Graduate School."

### School of Greek.

PROFESSOR HUNTINGTON.
MR. PYNE.

In this School instruction is given in the Greek Language and Literature and in Greek History. The following books are used as text-books or for reference: Goodwin's and Hadley's Greek Grammars, Boise's Exercises in Greek Syntax, and Oman's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's or Long's, or Ginn & Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all the classes.

In this School portions of the following authors are studied:

1. Homer; Herodotus. Also, the History of Greece (Oman's). Three hours a week for two terms.

2. Xenophon (Memorabilia); Lucian. Three hours a week for one term.

3. Isocrates. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week for two terms.

5. Plato and Thucydides, or Æschylus. One hour a week for two terms.

For Graduate Courses in Greek, see under head of "Graduate School."

## School of Latin.

DEAN MONTAGUE.
MR. JACKSON.

In this School instruction is given in the Latin Language and Literature and in Roman History. Courses 7, 8, and 9 constitute the Graduate Department, in which those parts of the works of the authors named which are not usually read by undergraduates are assigned. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required; in course 4, lectures are given upon Pedagogics; and to give practical illustration of the principles and suggestions thus presented, the students are from time to time called to the chair and required to conduct the recitation.

Grammars: Harkness's (text-book), Allen and Greenough's, Peters's and Madvig's. Lexicons: Harper's, White's English-Latin. Roman Literature: Cruttwell's, Wilkins's. Classical Atlas: Ginn & Co.'s or Kiepert's. Histories: Merivale's, Allen's, Myers's. In all the courses selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

COURSES.

1. Ovid, Livy, Horace (*Odes*), the History of Rome. Three times a week for nine months.

2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Plautus (*Captivi*). Three times a week for four and a half months.

3. Cicero (*Letters*), Tacitus (*Germania*), Terence (*Andria*), Roman Antiquities. Three hours a week for four and a half months.

4. Tacitus (*Agricola* and *Annals I.*), Pliny (*Letters*), Seneca, Juvenal; Critical Study of the History of Rome; annotations by the students upon the authors read. For practical instruction in this work, see course "Books and Book-making." Three hours a week for nine months.

5. Quintilian; Essays upon Roman Literature. One hour a week for six months.

6. Cicero (*De Finibus*), Social Life of the Romans. One hour a week for five months.

For Graduate Courses in Latin, see under head of "Graduate School."

### School of French.

PROFESSOR LODGE.
MR. HENNING.

1. The class is drilled in French pronunciation; grammar; progressive exercises in composition; conversation.

Works read: Histoire d'un Conscrit; Le Voyage de M. Perrichon; Un Mariage d'Amour; Edgren's French Grammar is used. Three hours a week.

2. French syntax critically studied; Dictation Exercises; Short Original Essays; French Conversation.

Works read: Petite Histoire du Peuple Français, Lacombe; Le Cid; Athalie; L'Avare; Colomba; Parallel readings in Corinne; Sauveur's Grammaire Française. Three hours a week.

3. French Idioms studied; Lectures on the development of the tongue; Comparative Philology. Students in this course will be required to take course II in the school of Historical and Political Philosophy.

Works read: Bug-Jargal; Le Bourgeois Gentilhomme; Horace; Cinna; Le Barbier de Séville; La Poudre aux Yeux; La Bataille de Dames; Parallel reading in nineteenth century authors. Three hours a week.

4. Philological studies based on original texts; thorough investigation in the origin of the laws of French syntax; La Chanson de Roland; Ruy Blas, Hernani, and Crane's Romantisme Français are also read. Two hours a week.

5. Lectures on the history of French Literature; systematic study by the class of one or more epochs; Comparative Literature. The authors read vary with the epochs chosen for study. Two hours a week.

During the first term opportunity is given for *Seminary* work of a strictly literary nature. One of the makers of French Literature is studied in his genesis, his essential characteristics, and his influence upon later writers in France and in other lands.

### School of Spanish.

PROFESSOR SOTELDO.

Thorough instruction will be given in the Castilian Language, with especial regard to a true and correct pronunciation and to the acquisition of the language in the shortest time possible.

Soteldo's "Spanish Grammar" and "Gramática Inglesa para les Españoles," composed especially to promote the reciprocal studies of the

two predominant languages of the three Americas, will be used as text-books.

Class days: Mondays, Wednesdays, and Fridays, at 4.30 p. m.

### School of German.

PROFESSOR GORE.

Instruction in this department has, as its primary object, a thorough knowledge of the Grammar and familiarity with the literature, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German Grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

Text-books: Sheldon's and Joynes-Meissner's German Grammars.

1. Readings from Bilderbuch ohne Bilder, Andersen; Das Kalte Herz, Hauff. Two hours a week.

2. Readings from Der Neffe als Onkel, Schiller; Höher als die Kirche, and selected stories. Two hours a week.

3. Readings from Lessing, Auerbach, Heyse, and Freytag. Two hours a week.

4. Elective seminary studies: Gore's German Science Reader, and extensive reading at sight. Two hours a week.

### School of Mathematics.

PROFESSOR GORE.
PROFESSOR HODGKINS.

In this School instruction is offered in twelve courses:

1. Solid Geometry; Wells's Revised Geometry. Four hours a week for three months.

2. Algebra; Bowser's Algebra. Four hours a week for three months.

3. Plane Trigonometry; Wells's Trigonometry. Four hours a week for two months.

4. Spherical Trigonometry; Wells's Trigonometry. Three hours a week for two months.

5. Analytic Geometry; Nichols's Analytic Geometry. Three hours a week for four months.

6. Theory of Equations; Chapman's Theory of Equations. Three hours a week for two months.

7. Differential and Integral Calculus, Taylor. Three hours a week for six months.

8. Differential Equations, Gore. Three hours a week for two months.

9. Determinants, with applications, Weld. Two hours a week for one term.

10. Elliptic Functions, Baker. Two hours a week for one term.

In all of the above courses the text is supplemented by lectures and the principles emphasized by proposing for solution a large number of problems taken from the best European and American authorities.

While the disciplinary value of the study of mathematics is never lost sight of, the importance of its practical applications is insisted upon.

OPTIONAL COURSES.

11. Analytical Mechanics, Wood. One hour a week for two terms.

12. Theory of Probabilities, with Applications to Least Squares; Lectures, notes by Professor Gore. One hour a week for two terms.

For Graduate Courses in Mathematics, see under head of "Graduate School."

## School of Chemistry.

PROFESSOR MUNROE.
DOCTOR BOLTON.

1. General Inorganic and Organic Chemistry. Three hours per week for one year.

Text-books: Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. For students who have taken course 1, Laboratory Practice. Three periods per week for one year.

Text-book: Cooke's Laboratory Practice.

3. For students who have shown marked aptitude in course 2, Qualitative and Quantitative Analysis and Chemical Preparations.

Text-books: Clowe's Qualitative Analysis; Thorpe's Quantitative Chemical Analysis.

For Graduate Courses in Chemistry, see under head of "Graduate School."

## School of Physics.

PROFESSOR HODGKINS.

1. A lecture course on General Physics, embracing the fundamental principles of Mechanics, Sound, Heat, Light, and Electricity. The lectures will be illustrated by experiments and will be based on Barker's Physics, Carhart's University Physics, and Daniell's Physics. Three hours a week.

For admission to this class courses 1, 2, and 3 in Mathematics will be required. A knowledge of the elements of Physics as contained in Carhart and Chute's Physics or in Gage's Introduction to Physical Science is desirable, but will not be insisted on during the next session.

2. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course 1. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports. Three times a week.

3. A lecture and laboratory course in Magnetism and Electricity, following, with some modifications, the course given in Poyser's Magnetism and Electricity (Advanced Course). Three times a week.

4. Light. A lecture and laboratory course, based on Preston's Theory of Light. Three times a week.

5. Heat. A lecture and laboratory course, based on Preston's Theory of Heat. Three times a week.

## School of Philosophy.

PROFESSOR STERRETT.

The special studies in this School as directed by Professor STERRETT are pursued in the two upper classes.

1. The Junior Class (three hours a week throughout the year) spends the first part of the year in the study of Psychology, the aim being to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will, as organic processes of the man developing into conscious universal relations.

Dewey or Höffding used as hand-book.

The second half of the year (three hours a week) is given to the His-

tory of Philosophy. This is given in a course of lectures, concurrent readings and theses being required from the students. *Schwegler's Manual* is followed.

2. The Senior Class spends the first half of the year (four hours a week) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Kant, Mill, and Spencer, and to hand in well-prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. McKenzie's *Manual of Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

This is followed by a six weeks' course on the Philosophy of History.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy (two hours a week, in the afternoon), and for attendance on the course of papers and discussions before *The Society for Philosophical Inquiry*, meeting in the University every Tuesday afternoon, with program for the current year as shown in course of philosophical lectures open to the students, mention of which is made in this Catalogue.

COURSES, ALTERNATE AND ELECTIVE.

3. Experimental Psychology. Lectures, with study of the method, scope, and most general results of Experimental Psychology. First term, one hour a week.

4 (*a*). History of Ancient Philosophy. Second term, three hours a week. Lectures, with study of some of the text, and *Zeller's* History.

4 (*b*). History of Modern Philosophy. Second term, three hours a week, alternating with (4*a*) Lectures, with study of text of several systems and with reference to Falkenburg and Windelband.

5. Pedagogics. Lectures and text-book study of the History and Philosophy of Education. *Painter and Rosenkrans.* Elective. Second term, one hour a week.

6. The Metaphysics of Ethics. Study of Green's *Prolegomena to Ethics.* Second term, one hour a week.

For Graduate Courses in Philosophy, see under head of "Graduate School."

## School of Political and Historical Philosophy.

PROFESSOR LODGE.
HON. W. L. WILSON.
MAJOR J. W. POWELL.
DOCTOR O. T. MASON.

### General Statement.

The studies in this School are designed to furnish the learner with an account of the genesis, development, and growth of political institutions. In all the branches pursued the method is comparative. Particular pains are taken to send students to the original sources of information as far as possible. To this end the class are constantly called upon to make use of the unequaled facilities of the Capital City for historical research. The archives of the Department of State are utilized to bring the student into direct contact with the original documents of American history.

### COURSES.

1. The Development of the English Constitution; lectures; collateral reading; studies in Gardiner, Freeman, and Boutmy. Two hours per week for three months.

2. The History of French Political Institutions; lectures; studies in Guizot, Taine, and Sir James Stephens. Two hours per week for three months.

3. The Evolution of American Political Ideas; lectures; studies of our history in its sources; collateral reading in the standard American historians and in C. E. Stevens's *Sources of the Constitution*. Two hours per week for three months.

4. Political Economy; text-book, Perry; studies in socialism and communism, coöperation, and other current economic problems. The Hon. W. L. Wilson will deliver a course of lectures upon the history of American economic legislation. Three hours per week for one year.

5. The History of Political Economy in Europe; lectures; studies in Blanqui. One hour per week for one year.

6. The Economic History of the United States; lectures; studies in Wells, Sumner, and Taussig. One hour per week for one year.

7. The Constitutional Law of the United States; text-books, Cooley and Bryce, with frequent studies in Eliot's Debates, the Federalist, Bancroft's Formation of the Constitution, Marshall, Story, Pomeroy, and Von Holst. Two hours per week for one year.

8. International Law; text-book, Gallaudet; lectures on the History

of the Law of Nations; studies in Maine, Wheaton, and Calvo. One hour per week for one year.

9. The Theory of the State; text-books, Histoire de la Science Politique, Janet; History of the Science of Politics, Pollock; The Theory of the State, Bluntschli; studies in Montesquieu, Hobbes, Locke, and Woolsey. Two hours per week for one year.

10. The History of Civilization, a course of lectures by the professor on history, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progress measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies in primitive society, and are followed by a rapid survey of the "civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America. Two hours per week for one year.

This instruction is supplemented by two courses of lectures—one course by Major J. W. Powell, LL. D., on the Four Stages of Culture, and the other course by Doctor O. T. Mason, on Origins.

### Books and Bookmaking.

PROFESSOR GORE.

In this course instruction will be given in:

1. The collection and preservation of material preparatory to the writing of a book. Lecture in October by Professor Mason on "How to Write a Book."

2. The preparation of manuscripts.

3. The illustrating of books. Lecture in November by Mr. R. E. Earll.

4. Printing of books. Lecture in December by Mr. George H. Judd.

5. Proof-reading, with extensive practice.

6. Book-binding, including lettering and styles of binding. Illustrated lecture in January by Doctor Fletcher.

7. Cataloguing and classification. Lecture in February by Dr. T. N. Gill.

8. Bibliography.

Every effort will be made to utilize the exceptional advantages offered by the presence in Washington of specialists in the topics outlined above, and opportunities will be offered for practical work by members of the faculty engaged in literary work or who require of their students thorough investigation.

The private library of the professor is well equipped with bibliographic aids and illustrative material.

### School of the Fine Arts.

PROFESSOR PARTRIDGE.

Announcements concerning the course and the lectures in this School will be made at the beginning of the next academic year.

### Time and Terms of Admission.

I. Entrance examinations will be held as follows:

Friday, Sept. 20, 1895—9.00–10.30, English.
10.30–12.00, Latin.
12.30– 2.00, Greek.
2.00– 3.30, French.
Saturday, Sept. 21, 1895—9.00–10.30, Physics.
10.30–12.00, Algebra.
12.30– 2.00, Geometry.

II. Every applicant is required to submit testimonials of character and scholarship.

III. Candidates for admission to any School will be examined in all the studies presupposed by the curriculum of that School.

IV. Candidates for admission to the School of English will be examined upon English Grammar, Rhetoric, and American History. They will be required also to write an essay upon one of the following authors: Shakespeare's *Merchant of Venice* and *Twelfth Night;* Milton's *L'Allegro, Il Penseroso, Comus,* and *Lycidas;* Longfellow's *Evangeline; Sir Roger de Coverley Papers* in *The Spectator;* Macaulay's essays upon Milton and Addison; Webster's first Bunker Hill Oration; Irving's *Sketch-Book,* and Scott's *Abbot.*

V. Candidates for admission to the School of Greek in its lowest class will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek Reader or Xenophon's *Anabasis* (first four books), first three books of Homer's *Iliad,* Jones's Greek Prose Composition, and Myers's or Schmitz's History of Greece.

VI. Candidates for admission to the School of Latin will be examined in Harkness's Latin Grammar, four books of Cæsar's *Commentaries,* six of Cicero's Orations, six books of the *Æneid* of Vergil, Sallust's *Conspiracy of Catiline* (in part), Ovid's *Metamorphoses* (two books), Latin Composition, and Allen's, Myers's, or Pennell's History of Rome.

VII. Candidates for admission to the School of French will be examined in Edgren's French Grammar and in the first hundred pages of Rollins's French Reader.

VIII. Candidates for admission to the School of Mathematics in its lowest class will be examined in Algebra (through Quadratic Equations) and in Plane Geometry.

IX. Candidates for admission to the courses leading to the degree of Bachelor of Science will be examined in Elementary Physics. Carhart and Chute's Physics, Avery's First Principles of Natural Philosophy, Gage's Introduction to Physical Science, or Hall and Bergen's Text-book of Physics will give suitable preparation.

X. Candidates may be excused from examination in some or all of the required subjects by presenting certificates from the Washington High School or from other Schools of good standing. Blank forms of such certificates may be obtained on application to the Dean.

XI. Real equivalents in quality and amount will be received in place of the books or parts of the books prescribed as above for study preparatory to admission into the Schools of Greek, Latin, and Mathematics.

XII. Candidates for admission to any advanced class in any School will be examined in all indispensable preliminary studies.

XIII. Students wishing to pursue a select course in certain Schools will be admitted to the classes for which they may be found qualified, and every student pursuing such a course, if under the age of twenty-one years, is required to embrace in the selections not less than three distinct Schools, with at least twelve recitations or lectures per week. The choice of studies embraced in a select course must be made immediately upon the commencement of a term, and no student, without permission of the Faculty, may make a new choice of studies during any single term.

## Degrees.

The degree of Bachelor of Arts or Bachelor of Science is conferred on students who complete the appropriate course of study as outlined below.

Courses of Graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this catalogue.

### COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF ARTS.

(The figures refer to the numbers of the courses in the several Schools of the College, as previously described.)

#### FRESHMAN YEAR.

| | |
|---|---|
| English, 1, 2, 3. | French, 1; or |
| Greek, 1. | German, 1. |
| Latin, 1. | Mathematics, 1, 2, 3. |

SOPHOMORE YEAR.

| | |
|---|---|
| Greek, 2, 3. | English, 4, 5, 6. |
| Latin, 2, 3. | Mathematics, 4. |
| French, 2; or | Chemistry, 1; or |
| German, 2. | Physics, 1. |

JUNIOR YEAR.

| | |
|---|---|
| Greek, 4; or | English, 7, 8, 9, 10. |
| Latin, 4. | Philosophy, 1. |

Elective, 6 hours a week, of which 2 hours must be taken in the School of Political and Historical Philosophy.

SENIOR YEAR.

| | |
|---|---|
| Greek, 5; or | English, 11, 12. |
| Latin, 5 or 6. | Philosophy, 2. |
| | Political Philosophy, 4. |

Elective, 6 hours a week.

COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

| | |
|---|---|
| English, 1, 2, 3. | Mathematics, 1, 2, 3. |
| | Chemistry, 1. |

Elective, two languages, one of which must be French or German.

SOPHOMORE YEAR.

| | |
|---|---|
| English, 4, 5. | Chemistry, 1. |
| Mathematics, 4, 5, 6. | Physics, 1. |

Elective, two languages, one of which must be French or German.

JUNIOR YEAR.

| | |
|---|---|
| English, 8. | Chemistry, 2; or |
| Mathematics, 7, 8. | Physics, 2. |
| | Philosophy, 1. |

Elective, 5 hours a week, which must include French or German.

SENIOR YEAR.

| | |
|---|---|
| Chemistry, 3; or | Mathematics, 9, 10. |
| Physics, 3, 4, or 5. | Political Philosophy, 4. |

Elective, 8 hours a week, which must include French or German.

### Examinations.

At the end of each term, examinations of all the classes of all the Schools are publicly held in the studies of that term.

The results of the Term Examinations are combined with those of the daily recitations and attendance of the student during the term, in order to ascertain his academic standing at the end of that term.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and, in default of doing so, shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for degrees are concluded three weeks before the date of the Annual Commencement, that time may be given to Professors for the inspection of written examination papers, and to students for the preparation of parts to be performed on Commencement Day by the successful candidates to whom public parts on that day may be assigned by the Faculty.

Examinations for prizes are concluded three weeks before the end of each scholastic year.

### Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as the reward of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, and are annually awarded to the two successful competitors, in a public contest. These prizes are awarded by a committee selected by the Faculty for this purpoee and are publicly delivered at the Annual Commencement.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar and writer in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the best two scholars in the Pure and Applied Mathematics.

Professor Munroe offers a prize of a gold medal to that student from

the Washington High Schools who, having successfully passed the entrance examinations to the Columbian College, shall have attained the highest mark in Chemistry among those competing in this subject.

### Prizes in 1893–'94.

Staughton Prize, George R. Davis, Maine.
Elton Prize, George R. Davis, Maine.
Davis Prize, *First*, H. L. Mitchell, District of Columbia.
Davis Prize, *Second*, Mary V. Fenwick, District of Columbia.

### Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the Degrees of Bachelor of Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

Philosophical, Classical, Scientific, Metaphysical, Ethical, Historical, or Literary Orations may be awarded to students who are eminent respectively in the corresponding Departments.

All the degrees of the College are publicly conferred on Commencement Day.

Prizes for special excellence in any Department are publicly delivered on the same day.

### Public Worship.

Brief devotional exercises, which all students are expected to attend, are held daily in the College chapel, and these are followed by the reading, once a week, of an essay selected from those written from time to time by the several classes.

### Library Hours.

The College Library is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 6 to 10 p. m., for purposes of study and inquiry, as also for the distribution of books. A reading-room, provided with the leading reviews, periodicals, and newspapers, is maintained by the Alumni for the use of students and graduates.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for purposes of research in any special line of studies.

### Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly for the purpose of improvement in Debate and Composition.

### Lectures.

Courses of Lectures in Literature, Art, and Science are organized every year by the authorities of the University. These Lectures are open to all the classes, and to the public, on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Lecture Hall of the University, are equally open to all students of the University.

Mention of lectures delivered during the present session is made elsewhere in this catalogue.

### General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all studies, including a record of absences from lectures, recitations, or other public exercises of the College, will be rendered periodically to parents or guardians.

The daily recitations of the College classes are brought, as far as practicable, into the early portion of the day. The advantages of attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

### College Expenses.

| | |
|---|---|
| 1. Admission Fee (paid but once, on entrance) | $10 00 |
| 2. Tuition for the year in three or more Schools | 90 00 |
| 3. Tuition for the year in two Schools | 70 00 |
| 4. Tuition for the year in one School | 50 00 |
| 5. Laboratory work in Chemistry, 2 and 3 (material) each | 10 00 |
| 6. Final Diploma Fee | 10 00 |

These charges cover all expenses.

Bills are payable semi-annually, in advance.

### Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Preparatory School and four in the College, is annually conferred on the best scholar in the public High School. Students on this foundation pay semi-annually, in advance, a fee of eight dollars.

A recent ordinance of the Corporation increases the number of scholarships by six, to be distributed annually among the several public High Schools of Washington in proportion to their respective numbers in attendance, the successful candidates being determined by a competitive examination held on the first Saturday in June of each year at the University. Holders of these scholarships pay semi-annually, in advance, a fee of eight dollars.

### Rooms and Board.

Desirable rooms, convenient to the University buildings, are obtainable at $5 to $15 per month, and good board is offered at $15 to $20 per month. Lists of eligible boarding-houses will, upon request, be furnished by the Registrar.

For further information concerning the Columbian College, application may be made to

ANDREW P. MONTAGUE, *Dean*,
*The Columbian College, Washington, D. C.*

### Students.

CANDIDATES FOR DEGREES.

| | | |
|---|---|---|
| Robert Stribling Barrett, Jr. | Va. | 2213 Washington Circle, N. W. |
| Helen Ruth Biddis | Pa. | Eckington, D. C. |
| Florence Lorraine Bingham | D. C. | Garrett Park, Md. |
| Frank Lee Biscoe | D. C. | 813 Twenty-first Street, N. W. |
| Florence Edith Bowman | Pa | Anacostia, D. C. |
| Elise Bradford | R. I. | 1522 P Street, N. W. |
| Edmund Kemper Broadus | Va. | 1928 Ninth Street, N. W. |
| Dixson H. Bynum | Ind | 1314 Nineteenth Street, N. W. |
| Mary Katherine Chapin | D. C. | 909 Florida Avenue, N. W. |
| Reed Paige Clark | N. H. | 1424 Eleventh Street, N. W. |
| Thatcher Clark | N. Y | 1628 Riggs Place, N. W. |
| Clara Alma Crew | Ohio | 1532 Ninth Street, N. W. |
| George Roscoe Davis | Me. | 1108 New York Avenue, N. W. |
| Reginald Sharp Davis | D. C. | 1622 Fifteenth Street, N. W. |
| Taylor Boyd Dixon | Md. | 1421 Twenty-ninth Street, N. W. |

| | | |
|---|---|---|
| Harry Hampton Donnally | Va. | 511 B Street, N. E. |
| Robert Farnham, Jr. | D. C. | 1103 M Street, N. W. |
| Joseph Finckel | D. C. | 1319 S Street, N. W. |
| Edgar Raymond Frisby | D. C. | 1607 Thirty-first Street, N. W. |
| Harry Samuel Greene | Vt | 1320 Q Street, N. W. |
| Mary Squire Hinman | Ohio | 1512 U Street, N. W. |
| G. Carroll Hoover | Pa | 63 R Street, N. W. |
| Hannah May Johnson | D. C. | 5 Grant Place, N. W. |
| Frederick Cragin Jones | D. C. | 946 F Street, S. W. |
| Mary Isabel Kelly | D. C. | 228 A Street, S. E. |
| Anna Campbell Kelton | Cal | 1841 R Street, N. W. |
| Eleanor Annie Lamson | D. C. | Anacostia, D. C. |
| Ruth McGowan | Mich. | 1443 Staughton Street, N. W. |
| Addie Estelle Maguire | D. C. | 1116 Virginia Avenue, S. W. |
| Russell Burton Main | Mass. | 2009 Massachusetts Avenue, N.W. |
| Charles Addison Mann, Jr. | D. C. | 1517 L Street, N. W. |
| Gertrude Elizabeth Metcalf | Me | 1631 Marion Street, N. W. |
| Henrietta Camille Morrison | D. C. | 1009 Massachusetts Avenue, N. E. |
| Etheldreda Lord Norris | N. J. | Sligo, Md. |
| Lillian Pace | Va | 1012 N Street, N. W. |
| Charles Le Roy Parker | N.Y. | 137 Carroll Place, S. E. |
| Conrad Magruder Patten | D. C. | 3033 P Street, N. W. |
| Edward Alfred Playter | Iowa | 1921 Sixth Street, N. W. |
| Daniel Webster Prentiss, Jr. | D. C. | 1101 Fourteenth Street, N. W. |
| Elliott Coues Prentiss | D. C. | 1101 Fourteenth Street, N. W. |
| Spencer Baird Prentiss | D. C. | 1101 Fourteenth Street, N. W. |
| Louise Ritchie | D. C. | 3259 N Street, N. W. |
| Grace Isabella Ross | Vt. | 77 L Street, N. W. |
| Frederick A. L. Schade | Va. | 1207 Sixth Street, N. W. |
| Roger Shaw | Md | Rockville, Md. |
| Henry Hatch Dent Sterrett | D. C. | Springland, D. C. |
| George Edmund Traver Stevenson. | N.Y. | E. Washington Heights, D. C. |
| Hugh Thomas Stevenson | N.Y. | Anacostia, D. C. |
| Albert Rhett Stuart | S. C. | 1226 Fifteenth Street, N. W. |
| Hattersly Worthington Talbott | Md | Rockville, Md. |
| Joseph Gorham Tyssowski | D. C. | 1431 Rhode Island Avenue, N.W. |
| Clara Mary Upton | D. C. | 406 Spruce Street, N. W. |
| William Krafft Ward | D. C. | 1756 Pennsylvania Avenue, N.W. |
| Elinor Wilson | D. C. | 1439 Massachusetts Avenue, N.W. |

**Special Students.**

| | | |
|---|---|---|
| Paul Francis Akin | Ga. | 939 K Street, N. W. |
| Amelia Sarah Altemus | D. C. | 1318 Corcoran Street, N. W. |
| Mabel Whitman Baker | D. C. | 1315 Corcoran Street, N. W. |
| Charles Middleton Beall | D. C. | 1626 Fifteenth Street, N. W. |
| L. Alice Bingham | Ind. | 631 East Capitol Street. |
| Helen Black | D. C. | 912 East Capitol Street. |
| Harry S. Brown | D. C. | 1516 Q Street, N. W. |
| Katherine H. Brown | Ill. | 1400 Chapin Street, N. W. |
| Adelaide Clements | D. C. | 1234 Tenth Street, N. W. |
| Osgood Harrison Dowell | Md | Woodside, Md. |
| Lucy Walton Falls | N. C. | West Washington. |
| Winifred Fountain | D. C | Good Hope, D. C. |
| Sarah Dehon Gadsden | S. C. | 7 Cooke Place, N. W. |
| Ida A. Green | D. C. | 410 Second Street, N. E. |
| Mortimer B. Hall | D. C. | 809 Eleventh Street, N. W. |
| Charles Griffith Hoffman | D. C. | 222 E Street, N. W. |
| Katherine Hosmer | D. C. | 2020 Hillyer Place, N. W. |
| Frances Mabel Jacobs | D. C. | 1327 Eleventh Street, N. W. |
| Clifton Laughlin | Va. | Langley, Va. |
| Richard N. Mason | Va. | 3038 Cambridge Place, N. W. |
| Gertrude Neely | D. C. | 1007 East Capitol Street. |
| Edythe Marion Newlands | Nev. | Chevy Chase, Md. |
| Janet Newlands | Nev. | Chevy Chase, Md. |
| Josephine Bettes Parkman | Mass | 461 Florida Avenue, N. W. |
| Harry T. Proctor | D. C. | 1237 B Street, S. E. |
| Mary M. Raborg | | 1419 Q Street, N. W. |
| Susie F. Ramsey | | 2 C Street, N. E. |
| John Lewis Riggles | D. C. | 445 O Street, N. W. |
| Charles Kilbourne Robinson | N. J. | 1607 S Street, N. W. |
| Alma Hammond C. H. Ruggles | D. C. | 1500 New Hampshire Avenue, N. W. |
| Dennis Walker | D. C. | 418 B Street, N. E. |
| Mary Knapp West | Ky. | Brookland, D. C. |
| William G. Woodford | D. C. | 1519 Eighth Street, N. W. |

| | |
|---|---|
| Candidates for Degrees | 54 |
| Special Students | 33 |
| | 87 |

# THE PREPARATORY SCHOOL.

**Committee of the Trustees on the Preparatory School.**

HON. J. ORMOND WILSON,
PROFESSOR OTIS T. MASON,
MR. S. W. WOODWARD.

**Corps of Instructors.**

ANDREW P. MONTAGUE, PH. D., PRINCIPAL.

ERNEST HILTON JACKSON, A. M., ASSISTANT PRINCIPAL,
Instructor in Latin.

HOWARD L. HODGKINS, PH. D.,
Instructor in Physics.

LEE D. LODGE, PH. D.,
Instructor in French.

HENRY R. PYNE, A. M.,
Instructor in Greek and English.

H. GRANT HODGKINS, A. B.,
Instructor in Mathematics.

RAYMOND MACDONALD ALDEN, A. B.,
Instructor in English.

GEORGE N. HENNING, A. B.,
Instructor in French and English.

EDWARD C. TOWNSEND,
Instructor in Elocution.

EDWIN B. HAY, A. M.,
Instructor in Penmanship and Book-keeping.

### Design.

The Preparatory School of the Columbian College was established for the purpose of giving a thorough preparation for College or the technical school, and of fitting boys for the higher pursuits of business. In its new building, in its grades of study, and in its general management, the authorities and the instructors have kept steadily in view the growth of the National Capital and the progress of education in our country.

Very many of the boys of our city are compelled to forego a college education and to prepare themselves to enter at once, on leaving the School, some of the many avenues of self-support. This fact has been carefully considered, and a High-School course is so arranged as to assist those who take it in making the best use of the time at their disposal.

The School has always been attended by a class of students who, being able to devote but a short time to study, avail themselves of the privilege of selecting from the programme of the several classes such studies as examination shows them qualified to pursue. While it is not intended to discourage from such a course those whose circumstances, rather than their desires, dictate their choice, it is urged as most important that all who can should pursue *the regular course* in one department or the other. An additional year of time is well bestowed in securing the fruits of systematic and thorough study, which often fail to mature because of the student's desire to reach his goal prematurely.

### Scholarships.

Under the terms of the "Admiral Powell Endowment," free scholarships will be given to a limited number of pupils who are preparing for admission to the United States Naval Academy at Annapolis, and who at the end of their course of study shall actually enter that institution.

### Discipline.

The School is conducted on Christian principles, both in its discipline and its teachings; but no instruction is given and no influence exerted in favor of any peculiar denominational tenets.

In addition to daily recitations, examinations are held at the end of each term on all the studies of that term.

The graded scale of merit used in the School ranges from 0 to 100, and each student must reach a grade of 70 in order to be advanced with his class.

The progress of the scholar is stimulated by daily records, by monthly and term reports to parents, by promotions in his class, and by prizes.

### General Information

One of the Principals will be at the School Building, No. 1335 H Street, northwest, from the twelfth of September until the School begins, from 10 o'clock a. m. to 1 o'clock p. m., for the purpose of receiving new students and of answering inquiries concerning the School.

The number of scholars in the School at any one time is limited to one hundred, and students will be admitted to vacancies in this number according to the order of their registered application. All students desiring to enter the School will be required to undergo an entrance examination.

Applicants for admission to the Fourth Class should have a good working knowledge of common and decimal fractions and of compound numbers, besides some preparation in English grammar and geography.

The School hours are from 9 o'clock a. m. to 2.15 o'clock p. m.

### Expenses.

For the scholastic year, including all expenses..... $80 00

All bills must be paid in advance, at the beginning of each half-yearly term, to B. T. SENER, LL. M., Registrar of the School.

### Course of Study.

FIRST YEAR, FOURTH CLASS.

Reading: Selected Readings.
Spelling: Merrill's *Word and Sentence Book.*
Arithmetic: Hobbs's *Academic Arithmetic.*
Geography: Swinton's *Grammar School Geography.*
History: Montgomery's *History of the United States.*
Grammar: Hart's *Elementary Grammar.*
Latin: Tuell and Fowler's *First Book in Latin.*
Map Drawing.

SECOND YEAR, THIRD CLASS.

Reading: *Autobiography of Franklin; Selections from Irving.*
Spelling: Westlake's *5,000 Practice Words.*
Grammar: Hart's *English Grammar and Analysis.*
Arithmetic: Hobbs's *Academic Arithmetic.*
Geography: Swinton's (Completed).
History: Anderson's *History of England.*

Latin: Harkness's *Latin Grammar;* Daniell's *Latin Exercise Book,* and Chase & Stuart's *Cæsar.*

Greek: White's *Beginner's Greek Book* and Goodwin's *Xenophon's Anabasis.*

Map Drawing.

THIRD YEAR, SECOND CLASS.

Reading: *Readings in American Literature.*

Civil Government: Thorpe's.

Spelling: Westlake's *3,000 Practice Words.*

English: Hart's *English Grammar and Analysis;* Butler's *School English.*

American Literature: Smyth's.

Geography: *Eclectic Physical Geography.*

Arithmetic: Hobbs's *Academic Arithmetic.*

Algebra: Wells's *Academic Algebra.*

History: Anderson's *General History.*

Latin: Harkness's *Latin Grammar;* Original and Selected Exercises; Chase & Stuart's *Cæsar;* Chase & Stuart's *Vergil's Æneid.*

Greek: Goodwin's *Greek Grammar;* White's *Beginner's Greek Book;* Harper's *Greek Prose Composition;* Goodwin's *Xenophon's Anabasis.*

FOURTH YEAR, FIRST CLASS.

Reading: Macaulay's *Essay on Chatham;* Scott's *Lady of the Lake;* the *De Coverley Papers;* Dickens's *David Copperfield;* Shakespeare's *Julius Cæsar;* Irving's *Sketch-book.*

Spelling: Westlake's *3,000 Practice Words;* Selected Words.

Rhetoric: Genung's *Outlines of Rhetoric.*

History: Myers's *History of Rome;* Myers's *Eastern Nations and Greece.*

Latin: Harkness's *Latin Grammar;* Selected and Original Exercises; Chase & Stuart's *Vergil's Æneid;* Chase & Stuart's *Cicero's Orations;* Allen & Grenough's *Ovid;* Wilkins's *Primer of Roman Literature.*

Greek: Goodwin's *Greek Grammar;* Harper's *Greek Prose Composition;* Goodwin's *Xenophon's Anabasis;* Seymour's *Homer's Iliad;* Jebb's *Primer of Greek Literature.*

Geography: Van Kampen's *Ancient World.*

French: Van Daell's *Introduction to French Language;* Rollins's *French Reader.*

Algebra: Wells's *Academic Algebra.*

Geometry: Wells's *Plane and Solid Geometry, revised.*

Physics: Carhart & Chute's *Elements of Physics.*

In all classes: Penmanship, Composition, Declamation, and Book keeping (optional).

### Special Exercises.

From time to time the students assemble in the Study Hall and listen to debates, which are conducted by members of the higher classes who have prepared themselves for these discussions. Occasionally all of the students are called together, and the instructors question them upon the subjects studied in the School and upon current topics, and now and then gentlemen prominent in literary, scientific, and business circles address the School. Patrons and other friends are usually invited to be present at all of these exercises.

### Literary Society.

The Hermesian Society, composed of students of the two higher classes, meets weekly in a hall assigned to it by the authorities of the School for the purpose of practicing debate and for improvement in composition.

The society is under the general supervision of the instructors, but this supervision never takes the form of disagreeable interference.

Three medals are given by this society. One is awarded by Mr. A. M. Sayre to the successful contestant in a prize debate. Another medal for excellence in debate is given each year by the society, and is awarded to that member who has made the best record as a debater throughout the entire year. The third medal is given by the society to the best essayist.

### "The Boston Boys."

Some years ago the Preparatory School received from one of the benefactors of the Columbian University, W. W. CORCORAN, LL. D., a superb painting, "The Boston Boys," by Henry Bacon. This beautiful ornament of the School hangs in the main room, and is a delight to the eye as well as an incentive to patriotism.

### Annual Prizes.

The Regular Prizes of the School consist of First and Second Scholarship Medals in each class.

Gold Medals are also given to those students who have been blameless in deportment and against whom there is no record of absence or tardiness during the entire session.

Through the liberality of the late Mr. Samuel Norment, President of the Central National Bank of Washington, the authorities of the School will award annually three prizes ($25, $20, and $15) to the students whose scholarship, combined with irreproachable conduct, shall entitle them to be considered respectively the First, Second, and Third Honor Boys of the School. These prizes will be awarded to those boys only who take the full course.

### Special Annual Prizes.

The following prizes are annually offered as rewards of special excellence in particular branches of study:

1. The Jackson Gold Medal, for excellence in the Latin Language.
2. The Roome Gold Medal, founded in honor of the lamented and scholarly Dr. Edward Roome, for excellence in the Greek Language, given by Mrs. Lillian K. Roome.
3. The Hodgkins Gold Medal, for excellence in Mathematics.
4. The Alden Gold Medal, for excellence in English Composition.
5. The Townsend Gold Medal, for excellence in Elocution during the session.
6. The Gold Medals for excellence in Declamation at the Commencement, given by Mr. B. H. Warner.
7. The Sayre Gold Medal, for excellence in Debate.

### Honor Roll—Session 1893-'94.

FOR HIGH GRADE OF SCHOLARSHIP.

First Class—First Prize: C. M. Patten.
Second Prize: Thatcher Clark.
Third Class—First Prize: M. F. Lanza.
Jackson Gold Medal in Latin—C. M. Patten.
Roome Gold Medal in Greek—C. M. Patten.
Cuthbert Gold Medal in History—M. F. Lanza.
Townsend Gold Medal for Elocution during the Session—G. E. Green.
The Webster and the Depew Gold Medals for Declamation at the Commencement, presented by B. H. Warner, Esq., awarded by a Committee of Judges—first award, Robert Farnham, Jr.; second award, H. H. D. Sterrett.
Honorable mention of R. S. Davis.

Prizes founded by the late Samuel Norment, Esq., and now given by Mrs. Norment, awarded to the highest-honor boys of the School:

First Prize—$25 in gold: C. M. Patten.
Second Prize—$20 in gold: Thatcher Clark.
Third Prize—$15 in gold: M. F. Lanza.

Gold Medals for Punctuality and Deportment:

Three years—G. E. Green.
Two years—D. L. Chambers and S. C. Peelle.
One year—Earl Biscoe, W. L. Farnham, T. D. Gresham, C. H. Lanza, W. S. Manning, William W. Riley, and W. A. Ritchie.

## Graduates.

| | |
|---|---|
| John H. Clapp, | English, French, Latin, Physics. |
| Thatcher Clark, | English, French, Latin, Greek, Mathematics. |
| Reginald S. Davis, | English, French, Latin, Greek, Mathematics. |
| Taylor B. Dixon, | English, French, Mathematics, Physics. |
| Robert Farnham, Jr., | English, French, Latin, Mathematics, Physics. |
| Quiroff Harlan, | English, French, Mathematics, Physics. |
| Corrado H. Lanza, | English, French, Mathematics, Physics. |
| Richard N. Mason, | English, French, Latin, Mathematics. |
| Conrad M. Patten, | English, French, Latin, Greek, Mathematics. |
| J. Lewis Riggles, | English, French, Mathematics, Physics. |
| Charles R. Schmidt, | English, French, Mathematics, Physics. |
| H. H. D. Sterrett, | English, French, Latin, Greek, Mathematics. |
| Joseph G. Tyssowski, | English, French, Mathematics, Physics. |
| James W. White, | English, French, Mathematics, Physics. |

## Students.

| Name. | Class. | Patron. | Address. |
|---|---|---|---|
| Eugene Ashley | Fourth | Mr. James A. Ashley | 38 C St, N. E. |
| Edward Abbott Beard | First | Mrs. M. A. Beard | 1305 N St., N. W. |
| William Henry Beard | First | Mrs. M. A. Beard | 1305 N St., N. W. |
| J. William Beatty | First | Dr. H. W. Beatty | 631 Second St., N. W. |
| Charles Bell | Third | Gen. George Bell | 1909 G St., N. W. |
| Earl Biscoe | Second | Maj. H. L. Biscoe | 813 Twenty-first St., N. W. |
| Lorenzo Starr Brown, Jr. | First | Mr. L. S. Brown | 1627 Q St., N. W. |
| Gussie J. Burgdorf | Fourth | Mr. Augustus Burgdorf | 1334 New York Ave., N. W. |
| Walter N. Carver | Second | Mr. Frank N. Carver | 1431 L St., N. W. |
| David Laurance Chambers. | First | Mr. David A. Chambers | 1441 Q St., N. W. |
| Horace W. Chittenden | Second | Mr. George B. Chittenden | Mt. Pleasant, D. C. |
| Claude Christman | Second | Mr. P. H. Christman | 1337 Corcoran St., N. W. |
| William Plumer Copeland. | First | Mrs. V. P. Wiggins | 1729 F St., N. W. |
| Andrew J. Cummings | First | Mrs. Mary E. Cummings | Chevy Chase, Montgomery county, Md. |
| William G. Divine | Second | Mr. J. M. Divine | 3216 P St., N. W. |
| Morris E. Dow | Second | Mrs. William Coppinger | 307 D St., N. W. |
| James F. Dunlop | Third | Mr. William L Dunlop | 3014 N St., N. W. |
| F. Norton Everett | First | Mr. Edgar L. Everett | "Concord," New Hampshire Ave., N. W. |

| NAME. | CLASS. | PATRON. | ADDRESS. |
|---|---|---|---|
| William Lowry Farnham | First | Dr. Robert Farnham | 1103 M St., N. W. |
| Carroll T. Fugitt | First | Mr. N. B. Fugitt | 1634 Nineteenth St, N.W. |
| Donald C. Fugitt | First | Mr. N. B. Fugitt | 1634 Nineteenth St, N.W. |
| Oscar Fulks | Second | Mr. I. T. Fulks | Gaithersburg, Montgomery county, Md. |
| Louis Glavis | Fourth | Dr. George Glavis | 1353 Q St., N. W. |
| George Emery Green | First | Hon. D. A. Green | 1117 Seventeenth St., NW. |
| Raphael Newman Gwynn | First | Mr. R C. Gwynn | 1501 Vermont Ave., N.W. |
| Victor Haugaard | Third | Mr. Victor Haugaard | 607 Thirteenth St., N. W. |
| Rolvix Harlan | First | Mr. Burns Harlan | 1229 Tenth St., S. E. |
| Marshall Hill | First | Mrs. A. S. Hill | Welling Place, N. W. |
| Charles H. Holmead, Jr. | First | Mr. C. H. Holmead | 2127 Florida Ave., N. W. |
| Julian B. Huff | Third | Hon. George F. Huff | 1315 Sixteenth St., N. W. |
| Manfredi F. Lanza | Second | Mme. la Marquise Lanza | 1601 Twentieth St., N. W. |
| J. Reginald Lindsley | First | Mrs. Van S. Lindsley | 1774 Mass. Ave., N. W. |
| Frederick V. McNair | Third | Capt. F. V. McNair | "Richmond." |
| Wm. Saunders Manning | First | Dr. William P. Manning | 2072 Fourteenth St, N W. |
| Selma M. Mason | First | Mrs. E. M. Mason | 1444 N St., N. W. |
| Oscar Mechlin | Second | Mr. F. S. Mechlin | 722 Twenty-first St., N.W. |
| William Mitchell | First | Senator J. L. Mitchell | 32 B St., N. E. |
| Arthur Clyde Morgan | Second | Mr. Richard W. Morgan | 929 N. H. Ave., N. W. |
| Raymond Outwater | Fourth | Rev. Theron Outwater | 1352 B St., S. W. |
| William Dunlop Owens | First | Mrs. Louise M. Owens | 1203 N. H. Ave., N. W. |
| Stanton C. Peelle | First | Judge Stanton J. Peelle | "Concord," New Hampshire Ave., N. W. |
| Bishop Chaplin Perkins | First | Mrs. Louise E. Perkins | 1815 Sixteenth St., N. W. |
| Bennett Leighton Porter | Fourth | Mr. M. G. Porter | 1324 L St., N. W. |
| Preston B. Ray | First | Mrs. Ella M. Ray | Forest Glen, Md. |
| George Irving Raybold | First | Mr. George W. Raybold | 820 North Carolina Ave., S. E. |
| Wallace A. Ritchie | First | Mr. J. Suit Ritchie | 901 E St., S. E. |
| Nelson H. Rollins | Third | Mr. M. F. Rollins | 1261 Four-and-a-half St., S. W. |
| Willie Sioussat | Third | Mr. Charles M. Sioussat | 1736 Mass. Ave., N. W. |
| Alvin V. Skiles | First | Mrs. K. W. Skiles | 1417 Mass. Ave, N. W. |
| Arthur Prince Spear | Second | Gen. Ellis Spear | 3208 Fourteenth St., N.W. |
| Douglas D. B. Sterrett | Second | Dr. J. M. Sterrett | Columbian University. |
| William Dent Sterrett | First | Dr. J. M. Sterrett | Columbian University. |
| William J. G. Thomas | Third | Mr. Van Buren Thomas | 1839 Sixth St., N. W. |
| Otto Veerhoff | Fourth | Mr. W. H. Veerhoff | 910 Eighth St., N. W. |
| F. C. Ward | First | Mrs. H. C. Ward | Gaithersburg, Md. |
| Louis W. Weaver | First | Mrs. A. M. Weaver | Washington Grove, Md. |
| Paul White | Fourth | Mr. J. H. White | 1502 Vermont Ave., N. W. |
| John Wignall | Third | Mrs. R. R. West | Brookland, D. C. |
| Thom Williamson, Jr. | First | Chief Engineer Thom Williamson, U. S. N. | 1638 R. I. Ave., N. W. |
| Walter L. Woodward | Fourth | Mr. S. W. Woodward | 2015 Wyoming Ave., N.W. |
| W. B. Yoder | Fourth | Mr. C. T. Yoder | 405 Sixth St., S. W. |
| Gasquet di Zerega | Second | Mr. Alfred di Zerega | 2114 O St, N. W. |

Students in the Preparatory School..... 62

# THE MEDICAL SCHOOL.

**Faculty.**

THE REV. SAMUEL H. GREENE, D. D.,
Acting President of the Columbian University.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery and President of the Faculty.

WILLIAM W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine.

ALBERT F. A. KING, M. D.,
Professor of Obstetrics and the Diseases of Women and Children and Dean Emeritus.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, M. D.,
Professor of Anatomy and Dean of the Faculty.

E. A. DE SCHWEINITZ, M. D.,
Professor of Chemistry and Toxicology and Secretary-Treasurer.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Pædiatrics.

HENRY L. E. JOHNSON, M. D.,
Professor of Gynecology.

THOMAS E. McARDLE, M. D.,
Professor of Minor Surgery.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology.

A. CLARK PATTERSON, M. D.,
Professor of Mental Diseases.

EDMUND L. TOMPKINS, M. D.,
Professor of Nervous Diseases.

VERANUS A. MOORE, M. D.,
Professor of Normal Histology.

A. R. SHANDS, M. D.,
Professor of Orthopedic Surgery.

JOHN VAN RENSSELAER, M. D.,
Professor of Surgical Pathology.

WALTER REED, M. D.,
Professor of Pathology and Bacteriology.

----------,
Professor of Hygiene.

OSCAR A. M. McKIMMIE, M. D.,
Examiner of Applicants for Matriculation.

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**Clinical Professors.**

J. FORD THOMPSON, M. D.,
Clinical Professor of Surgery.

WILLIAM W. JOHNSTON, M. D.,
Clinical Professor of Medicine.

GEORGE N. ACKER, M. D.,
Clinical Professor of Medicine.

HENRY L. E. JOHNSON, M. D.,
Clinical Professor of Diseases of Women.

SAMUEL S. ADAMS, M. D.,
Clinical Professor of Diseases of Children.

WILLIAM K. BUTLER, M. D.,
Clinical Professor of Ophthalmology.

CHARLES W. RICHARDSON, M. D.,
Clinical Professor of Laryngology and Otology.

EDMUND L. TOMPKINS, M. D.,
Clinical Professor of Diseases of the Nervous System.

GEORGE BYRD HARRISON, M. D.,
Clinical Professor of General Medical Diseases.

G. WYTHE COOKE, M. D..
Clinical Professor of Medicine.

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**Demonstrators.**

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

E. G. SEIBERT, M. D.,
Demonstrator of Chemistry.

CHARLES R. CLARK, M. D.,
W. S. WASHBURN, M. D.,
Demonstrators of Normal Histology.

GLENDIE B. YOUNG, M. D.,
W. F. R. PHILLIPS, M. D.,
JOHN R. WELLINGTON, M. D.,
HENRY S. GOODALL, M. D.,
PRESLEY C. HUNT, M. D.,
EDWARD T. DAVIDSON, M. D.,
FRANCIS R. HAGNER, M. D.,
Assistant Demonstrators of Anatomy.

CHARLES J. HOPKINS, M. D.,
Prosector to the Chair of Anatomy.

JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
Demonstrators of Minor Surgery.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology.

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WILLIAM K. BUTLER, M. D.,
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CHARLES W. RICHARDSON, M. D.,
Clinical Professor of Laryngology and Otology.

EDMUND L. TOMPKINS, M. D.,
Clinical Professor of Diseases of the Nervous System.

GEORGE BYRD HARRISON, M. D.,
Clinical Professor of General Medical Diseases.

G. WYTHE COOKE, M. D..
Clinical Professor of Medicine.

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FRANCIS R. HAGNER, M. D.,
Assistant Demonstrators of Anatomy.

CHARLES J. HOPKINS, M. D.,
Prosector to the Chair of Anatomy.

JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
Demonstrators of Minor Surgery.

At the United States Patent Office models of many curious medical and surgical instruments may be daily inspected from 9 to 3 o'clock, thus affording to the student an opportunity of studying the mechanical contrivances used in medicine, surgery, and obstetrics that is not to be obtained in any other city.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Surgery.

PROFESSOR THOMPSON,

One of the Attending Surgeons to the Children's Hospital and to the Garfield General Hospital.

The course will embrace Didactic Lectures upon the Principles and Practice of Surgery, and, as far as practicable, Clinical Instruction at the College.

Professor THOMPSON being the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Every effort will be made to teach Surgery in accordance with the latest developments of scientific research. At the College, operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction will be given by Professor McArdle and his Assistants in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### Theory and Practice of Medicine.

PROFESSOR JOHNSTON,

One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes, which occur in many diseases, and to which all the structures of the body are liable. General or constitutional diseases and local diseases, or diseases of organs, are described in order.

As the subjects taught from the Chair are so numerous and cover so wide a field, two years are required to complete the course. The lectures

of each year, therefore, form a distinct and complete series, and it is necessary for the student to follow attentively the Lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress, and are absolutely necessary to a complete understanding of the studies of this Chair. They are considered obligatory studies.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

### Obstetrics and the Diseases of Women and Children.

PROFESSOR KING,

One of the Consulting Physicians to the Children's Hospital and Obstetrician to the Columbia Hospital for Women.

This course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the Lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin, for demonstrating obstetrical operations, has been a lded to the illustrative apparatus.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

### Materia Medica and Therapeutics.

PROFESSOR PRENTISS,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical Relations of the Materia Medica is not overlooked, but

time does not admit of their being considered in great detail in the lecture-room. They are rather proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick-room.

It will be the endeavor of Professor Prentiss to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmacal Laboratory, in connection with the Chair of Materia Medica and Therapeutics, has been established.

In this laboratory the students will be taught the methods of making the different Pharmaceutical Preparations, such as Infusions, Decoctions, Tinctures, Syrups, and the like.

They will also be taught the compounding of prescriptions; the proper excipients for pills; incompatibles, especially such as produce dangerous compounds, and will be expected to actually compound working formulæ.

## Anatomy.

### PROFESSOR SHUTE,

Ophthalmic Surgeon to the Washington Hospital for Foundlings.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to qualify one for the practice of medicine may be acquired during the two courses of Lectures from the Chair, which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the Surgical and Medical Relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors will prepare the subject for the Lecturer.

The Demonstrator of Anatomy and his assistants give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

## Chemistry and Toxicology.

PROFESSOR DE SCHWEINITZ,

Chemist of the Biochemic Laboratory, Bureau of Animal Industry, Department of Agriculture.

This course embraces—

A short discussion of the principles of physics in their relation to Chemistry, the principles of chemical philosophy, the laws of chemical combination and affinity.

The elements, metals and non-metals; their methods of isolation, properties, compounds, and reactions will be studied.

Due attention will be given to Organic Chemistry, especially those compounds that are of use in medicine.

Laboratory instruction will be given in the general methods of qualitative and quantitative analysis, toxicology, urine analysis, water analysis, and special clinical analyses.

Opportunity for advanced work in Biochemistry will be afforded.

## Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial pains will be taken to emphasize those truths that have a known practical value.

### Dermatology.

PROFESSOR YARROW.

Professor YARROW will give a course of Lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

### Pædiatrics.

PROFESSOR HARRISON,

In Charge of the Department of General Medicine, Central Dispensary and Emergency Hospital.

Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

### Gynecology.

PROFESSOR JOHNSON,

In Charge of the Department of Gynecology, Central Dispensary and Emergency Hospital.

Professor JOHNSON will illustrate his lectures upon the diseases peculiar to women by clinical demonstrations at the hospital.

### Minor Surgery.

PROFESSOR McARDLE,

One of the Assistant Physicians to the Children's Hospital.

Professor McARDLE'S course in Minor Surgery will consist of lectures and practical demonstrations. Under the supervision of his assistants, the students will apply themselves the various splints, bandages, surgical dressings, etc.

### Ophthalmology.

PROFESSOR BUTLER,

In Charge of the Lutheran Eye and Ear Infirmary.

Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

### Medical Jurisprudence.

PROFESSOR RUFFIN.

Professor RUFFIN'S course will deal with the relations of physicians to matters of legal investigation, and the students will be taught how to give expert testimony and how to conduct themselves as witnesses.

### Laryngology and Otology.

PROFESSOR RICHARDSON,

Laryngologist to the Providence Hospital.

This course will comprise lectures on diseases of the nasal passages, pharynx, larynx, and also the ear.

Practical instruction will be given in the use of the laryngoscope and other instruments required in these special branches.

### Mental Diseases.

PROFESSOR PATTERSON,

One of the Assistant Physicians to the Government Hospital for the Insane, St. Elizabeth.

Professor PATTERSON will give a series of lectures upon the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

### Nervous Diseases.

PROFESSOR TOMPKINS,

In Charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital.

Professor TOMPKINS will lecture upon the more common and important of these affections.

### Surgical Pathology.

PROFESSOR VAN RENSSELAER.

Dr. VAN RENSSELAER will give a series of lectures upon the Pathological Anatomy of Surgical Diseases and Injuries and upon Surgical Bacteriology, illustrated by means of charts and photographs.

### Orthopedic Surgery.

PROFESSOR SHANDS.

This course will embrace didactic Lectures on the Pathology, Etiology, Course and Termination of all Chronic Joint Diseases, and, as far as practicable, with clinical instruction of treatment of the same according to the most modern orthopedic methods.

Special attention will be given to the correction of all deformities, either acquired or congenital, by both mechanical and operative measures; also practical illustrations as to applications of all of the most modern orthopedic appliances.

Practical instruction will be given in the application and use of plaster of Paris in treatment of Potts' Disease, Scoliosis, Club Feet, etc.

### Histology.

PROFESSOR MOORE.

The study of Histology is compulsory for students through the first two years of their course. In the first year special attention will be given to the manipulation of the microscope and to that part of the technique necessary for an intelligent study of tissues. This will be followed in the latter part of the first session and throughout the second year by a systematic study of the cellular structure of the elementary tissues and organs of the body. The histological laboratory is well equipped with microscopes and accessory apparatus necessary for carrying out a thoroughly practical course of study in this subject. Examinations will be held at the close of each session.

### Pathology and Bacteriology.

PROFESSOR REED.

The course in Pathology begins with the study of inflammation, and takes up, in regular order, the pathological histology of the different tissues and organs of the body. Microscopical sections are given to be stained, mounted, and carefully studied and drawn.

Opportunities will be afforded to witness post-mortem examinations from time to time, which is considered a part of the pathological course.

In connection with the demonstration of fresh pathological material, use will be made of frozen microscopical sections of the fresh specimens.

In addition to the foregoing, examination of blood and urine is included as a part of the course in Pathology.

The bacteriological course will consist of practical work in the bacteriological laboratory. The student is here taught the preparation of culture media, the principles of disinfection and sterilization, and the methods of cultivating. staining, and studying bacteria. Familiarity with the pathogenic bacteria is considered the most important part of this course.

### Laboratory Instruction.

The new laboratories have been furnished with the necessary apparatus and with all modern appliances for practical instruction in Chemistry, Bacteriology, Normal and Pathological Histology and Pharmacy, as above described.

### Clinical Instruction.

Attendance upon Clinical Instruction in Medicine and Surgery, during at least two years, *is required*, and when the student presents himself for examination a certificate to the effect must be furnished.

GARFIELD HOSPITAL.—Clinical Lectures will be given regularly during the session by Professor THOMPSON on Surgery, and by Professors ACKER and COOKE on Medicine. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, THOMPSON, and ADAMS. An opportunity is here afforded of observing all the medical and surgical diseases, injuries, etc., to which children are liable. The dispensary service of the Hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors HARRISON, in charge of the department of general medicine, and TOMPKINS, in charge of nervous diseases, and H. L. E. JOHNSON, in charge of the department of diseases of women, will conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

### Requirements for Matriculation and Graduation.

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either submit themselves to an examination or in lieu thereof present a satisfactory certificate of their attainments from some college.

Should an examination be necessary, it will comprise the following subjects:

1. English composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Students conditioned or unable to undergo the examination in Latin or in Elementary Physics may obtain instruction on these subjects during the Freshman year, and on passing a satisfactory examination before the beginning of the second year will be admitted to matriculation.

Students desiring instruction in Latin, Physics, etc., may obtain it from Dr. O. A. M. MCKIMMIE, 1333 N street N. W., to whom they are referred for particulars as to the arrangement of time, fees, etc.

II. Candidates for the degree of Doctor of Medicine must have attended four courses of lectures, the subjects arranged as follows:

FIRST YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas; four hours laboratory work per week.

Materia Medica and Pharmacy.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Histology.—Four hours laboratory work per week.

Practical Anatomy.—Dissection-room open during the day and until 12 o'clock at night.

Examination at the end of the year upon the above-named subjects.

SECOND YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas; four hours laboratory work.

Materia Medica and Pharmacy.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Histology.—Four hours laboratory work per week.

Practical Anatomy.—Dissection-room open all day and until 12 o'clock at night.

Clinics.

Examination at the end of this year upon the above-named subjects.

THIRD YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Three lectures per week before Christmas; two lectures per week after Christmas.

Obstetrics.—Three lectures per week before Christmas; two lectures per week after Christmas.

Minor Surgery.—One lecture per week from October 3 to December 5; bandaging, etc., in the manikin-room.

Dermatology.—One lecture per week from January 7 to March 10.

Ophthalmology.—One lecture per week from October 8 to December 10.

Bacteriology and Pathology.—Eight hours laboratory per week.

Surgical Pathology.—One lecture per week from October 5 to December 7.

Clinics.

Examination on the above-named subjects at the end of the year.

FOURTH YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Three lectures per week before Christmas; two lectures per week after Christmas.

Obstetrics.—Three lectures per week before Christmas; two lectures per week after Christmas.

Gynecology.—One lecture per week from January 2 to March 5.

Mental Diseases.—One lecture per week from January 7 to March 10.

Medical Jurisprudence.—One lecture per week from October 3 to December 5.

Nervous Diseases.—One lecture per week from January 4 to March 7.

Pædiatrics.—One lecture per week from October 7 to December 9.

Otology and Laryngology.—One hour per week from November 4 to December 30; and from January 6 to March 16.

Orthopedic Surgery.—One lecture per week from January 4 to March 7.

Hygiene.—One lecture per week from January 8 to March 11.

Clinics.

Final examination at the close of the fourth year upon the above-named subjects.

## ORDER OF LECTURES, DAILY—FIRST YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry. Lower Room. | | Chemistry. Lower Room. | Histology. Laboratory. | Chemistry. Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. | Anatomy. Upper Room. | Materia Medica and Therapeutics. Lower Room. | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. |
| 7.30 | Physiology. Upper Room. | Chemistry Laboratory. | | Chemistry. Laboratory. | Physiology. Lower Room. | Anatomy. Upper Room. |
| 8.30 | | Chemistry. Laboratory. | | Chemistry. Laboratory. | | Practical Pharmacy. |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry. Lower Room. | Practical Pharmacy. | Histology. Laboratory. | | Chemistry Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica. Lower Room. | Anatomy. Upper Room. | Histology. Laboratory. | Anatomy. Upper Room. | Materia Medica. Lower Room. |
| 7.30 | Anatomy. Upper Room. | Chemistry Laboratory. | Physiology. Lower Room. | | Physiology. Lower Room. | Chemistry. Laboratory. |
| 8.30 | Physiology. Lower Room | Chemistry. Laboratory. | | | | Chemistry. Laboratory. |

## ORDER OF LECTURES, DAILY.—SECOND YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry. Lower Room. | | Chemistry. Lower Room. | Histology. Laboratory. | Chemistry. Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. | Anatomy. Upper Room. | Materia Medica and Therapeutics. Lower Room. | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. |
| 7.30 | Physiology. Upper Room. | Chemistry. Laboratory. | | Chemistry. Laboratory. | Physiology. Lower Room. | Anatomy. Upper Room. |
| 8.30 | | Chemistry. Laboratory. | | Chemistry. Laboratory. | | Practical Pharmacy. |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry, Lower Room. | Practical Pharmacy. | Histology. Laboratory. | | Chemistry. Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica. Lower Room. | Anatomy. Upper Room. | Histology. Laboratory. | Anatomy. Upper Room. | Materia Medica. Lower Room. |
| 7.30 | Anatomy. Upper Room. | Chemistry. Laboratory. | Physiology. Lower Room. | | Physiology. Lower Room. | Chemistry. Laboratory. |
| 8.30 | Physiology. Lower Room. | Chemistry. Laboratory. | | | | Chemistry. Laboratory. |

## ORDER OF LECTURES, DAILY.—THIRD YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | SURGERY. Upper Room. | | SURGERY. Upper Room. | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | (Oct. 8 to Dec. 10.) OPHTHALMOLOGY. Upper Room. | OBSTETRICS. Lower Room | | OBSTETRICS. Upper Room. | (Oct. 5 to Dec. 7.) SURGICAL PATHOLOGY. Upper Room. |
| 7.30 | BACTERIOLOGY. Laboratory. | PRACTICE Lower Room. | BACTERIOLOGY. Laboratory. | PRACTICE. Lower Room. | BACTERIOLOGY. Laboratory. | PRACTICE. Lower Room. |
| 8 30 | BACTERIOLOGY. Laboratory. | | BACTERIOLOGY. Laboratory. | (Oct. 3 to Dec. 5.) MINOR SURGERY AND BANDAGING. Special Room | BACTERIOLOGY. Laboratory. | |

### AFTER CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5 30 | SURGERY. Upper Room. | | | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | | | | OBSTETRICS. Lower Room. | |
| 7.30 | PATHOLOGY. Laboratory. | PRACTICE. Lower Room. | PATHOLOGY. Laboratory. | PRACTICE. Lower Room. | PATHOLOGY. Laboratory. | |
| 8.30 | PATHOLOGY. Laboratory. | (Jan. 7 to March 10.) DERMATOLOGY. Lower Room. | PATHOLOGY. Laboratory. | | PATHOLOGY. Laboratory. | |

## ORDER OF LECTURES, DAILY.—FOURTH YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | Surgery. Upper Room. | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | | Obstetrics. Lower Room. | (Oct. 3 to Dec. 5.) Medical Jurisprudence Upper Room. | Obstetrics. Upper Room. | |
| 7.30 | (Oct. 7 to Dec. 9.) Pædiatrics. Lower Room. | Practice. Lower Room. | | Practice. Lower Room. | | Practice. Lower Room. |
| 8.30 | (Nov. 4 to Mar. 16.) Otology and Laryngology. Lower Room. | | | | | |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | (Jan 7 to March 10.) Mental Diseases. Upper Room. | (Jan. 8 to March 11) Hygiene Lower Room. | (Jan 2 to March 5.) Gynecology. Upper Room. | Obstetrics. Lower Room. | (Jan. 4 to March 7.) Nervous Diseases. Upper Room. |
| 7.30 | | Practice. Lower Room. | | Practice. Lower Room. | | (Jan. 4 to March 7) Orthopedic Surgery. Upper Room. |
| 8.30 | | | | | | |

### Clinical Instruction.

Surgical Clinics, by Professor THOMPSON, at Garfield Hospital, on Sunday, at 11 a. m., and at the Children's Hospital at 2 p. m., during the entire course.

Medical Clinics, by Professor ADAMS, at the Children's Hospital, on Saturday, at 4 p. m., from October to January, and by Professor JOHNSTON, from January to April; by Professor ACKER, at the Garfield Hospital, on Tuesday, at 4 p. m., and by Professor G. WYTHE COOK, at the Garfield Hospital.

Clinics on the special branches will be given by Professor H. L. E. JOHNSON, at the Emergency Hospital, on Gynecology; by Professor RICHARDSON, on Laryngology and Otology, at the Lutheran Eye and Ear Infirmary; by Professor BUTLER, on the Diseases of the Eye, at the Lutheran Eye and Ear Infirmary, and by Professor TOMPKINS, on the Diseases of the Nervous System, at the Emergency Hospital.

When the student presents himself for graduation he must furnish a certificate from Dr. THOMPSON that he has attended two full courses of instruction in clinical surgery, and from Drs. JOHNSTON, ADAMS, or ACKER that he has attended two full courses of clinical medicine.

III. Students of other institutions who have attended one course of lectures in any regular medical school will be placed upon the same footing with those who have attended one course in this College, and those who have attended two (or three) courses of lectures in any other regular college or colleges will rank with those who have attended two (or three) courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described.

IV. Candidates for graduation must have studied medicine four years. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have dissected at least two sessions, during each of which he shall be required to dissect two "parts" of a subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will be both written and oral. The examination for the degree will be held at the end of the session in April.

The diploma is granted only at the Annual Commencement in May.

VII. Graduates of other accredited medical colleges must pass a satisfactory examination on the essential branches of medicine before receiving a diploma from this University.

VIII. Students who fail to pass the examinations in the spring will be allowed a re-examination in the following fall.

### Fees, Regulations, etc.

For the session of 1895–1896 the fee for each year (for new matriculants) will be $100. This covers all expenses, laboratories and dissection included. Of this amount at least $25 must be paid upon entrance.

| | |
|---|---|
| Matriculation Fee, payable only once | $5 00 |
| Single Tickets | 20 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Full Course, first year | 75 00 |
| Full Course, second year | 75 00 |
| Full Course, third year | 75 00 |
| Full Course, fourth year | 75 00 |

This annual fee of seventy-five dollars does *not* include the ticket of the Demonstrator of Anatomy nor any fee for laboratory work, but *does* include all examination fees and clinical instruction.

Students who matriculated during or before the session of 1892–'93, prior to the adoption of the four-year plan, will be charged in conformity with the old regulations, as follows:

| | | |
|---|---|---|
| First Course: | Four Primary Tickets | $60 00 |
| | Practical Anatomy, by the Demonstrator | 10 00 |
| | Total | $75 00 |
| Second Course: | Four Primary Tickets | $60 00 |
| | Three Final Tickets | 45 00 |
| | Practical Anatomy, by the Demonstrator | 10 00 |
| | Examination Fee (Primary Branches) | 20 00 |
| | Total | $135 00 |
| Third Course: | Three Final Tickets | $45 00 |
| | Examination Fee (Final Branches) | 10 00 |
| | Total | $55 00 |

The expense for Laboratory tickets to *all* students for Chemistry, Histology, Bacteriology, and Pathological Histology will be five dollars for *each branch* (total, $20). A deposit will be required to defray the expense of material used and apparatus destroyed in the chemical laboratory.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Dean or Secretary-Treasurer to suit the convenience of the student.*

Fees are to be paid to the Secretary-Treasurer.

By virtue of a liberal endowment from the late Mr. W. W. CORCORAN, this College is enabled to offer *six* free Scholarships.

*Two* of these Scholarships are open to the graduates of the several High Schools of the District of Columbia for competitive examination. These two Scholarships will be awarded to the two students whose averages are highest.

*Two* of the Scholarships are open, for competitive examination, to graduates of any reputable High School or College (preference being given to those in the District of Columbia), who shall give satisfactory written evidence of *pecuniary inability* and certificates of good moral character and industry. These two Scholarships will be awarded to the two graduates whose averages are the highest.

The remaining *two* of these Scholarships are open, for competitive examination, to students who, though not graduates of any High School or College, yet give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of *pecuniary inability* and certificates of good moral character and industry. These two Scholarships will be awarded to the two students whose averages are highest.

Applications should be addressed to the Dean and sent in not later than the first of September.

Graduates of other accredited Medical Colleges, after five years, are required to matriculate only. Prior to the expiration of five years the fee for a general ticket is $75.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from $12 to $30 per month, and rooms may be obtained for $10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at

No. 1325 H street N. W., and is within half a square of three lines of street cars going to every part of the city.

Students desiring further information are requested to address

DR. D. K. SHUTE, *Dean*,
1325 *H Street N. W., Washington, D. C.*

DR. E. A. DE SCHWEINITZ,
*Secretary-Treasurer*, 1325 *H Street N. W.*

**Prizes.**

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination.

The Faculty will award two additional prizes—one for proficiency in *Clinical Medicine*, and one for proficiency in *Clinical Surgery*.

In addition to these, Professor H. C. Yarrow gives a prize for the best examination in Dermatology; Professor H. L. E. Johnson gives one for the best examination in Clinical Gynecology, and Professor Sterling Ruffin gives one for the best examination in Medical Jurisprudence.

At the Commencement in May, 1895, the General Examination Prize was awarded to EDWARD E. RICHARDSON, of Vermont, first honorable mention being made of J. HAMILTON STONE, of the District of Columbia; second honorable mention of GEORGE T. PREWITT, of Texas, and third honorable mention of FANNIE C. BREWER, of Maryland.

The H. C. Yarrow Prize in Dermatology was awarded to WARREN DEXTER FALES, of Illinois. The H. L. E. Johnson Prize in Clinical Gynecology was awarded to HOMER L. SPAULDING, of Kansas, and the Sterling Ruffin Prize in Medical Jurisprudence to WILLIAM A. TYLER, of Kansas.

**Students in Medicine, 1894–1895.**

| Name. | Residence. |
|---|---|
| Noel Irby Barron, | Alabama. |
| George K. Baier, | District of Columbia. |
| May D. Baker, | Kansas. |
| J. N. Baker, | Kansas. |
| Osynm Baker, | New Jersey. |
| Frank A. Barbour, | District of Columbia. |
| Chester H. Beatty, D. D. S., | District of Columbia. |
| Winfred E. Berry, | Maryland. |
| Haymond Blauton, | Virginia. |

| Name. | Residence. |
|---|---|
| B. F. Blye, Jr , | New Jersey. |
| Fannie C. Brewer, | Maryland. |
| Eugene S. Brown, | Texas. |
| Arthur R. Butler, | Oregon. |
| Samuel Blair Caldwell, | Pennsylvania. |
| E. C. Campbell, | District of Columbia. |
| James S. Cannon, | England. |
| De Witt C. Chadwick, | Ohio. |
| T. P. Chapman, | Texas. |
| V. K. Chestnut, | California. |
| John E. Clarke, | District of Columbia. |
| George L. Clayton, | Louisiana. |
| P. Dunbar Clagett, | District of Columbia. |
| C. A. Clemons, | New York. |
| Percy M. Cox, | Maryland. |
| Henry K. Craig, | Maine. |
| George R. Currier, | Maine. |
| Joel T. Curry, | Georgia. |
| John Dale, | Pennsylvania. |
| William E. Davis, | Maryland. |
| Henry M. Dixon, | Mississippi. |
| William H. Dobson, | Pennsylvania. |
| H. W. Dorsey, Jr., | Maryland. |
| Marion Dorsett, | Pennsylvania. |
| Thomas Dowling, Jr., | District of Columbia. |
| George B. Driesbock, | Wisconsin. |
| G. S. Driver, | District of Columbia. |
| Harry A. Dunn, | District of Columbia. |
| Oliver F. Ernst, | Louisiana. |
| E. E. Ewell, | Michigan. |
| James M. Fairly, | Mississippi. |
| Warren D. Fales, | Illinois. |
| Henry Z. Fish, | Maryland. |
| William N. Fisher, | Virginia. |
| J. Herbert Ford, B. S., | District of Columbia. |
| W. Ashby Frankland, | Virginia. |
| H. R. Garland, | Virginia. |
| Ellis L. Godall, | Vermont. |
| Robert C. Gotta, | Pennsylvania. |
| L. Murray Gotwald, | Pennsylvania. |

| Name. | Residence. |
|---|---|
| Paul B. Graham, | District of Columbia. |
| Howard H. Graham, | Ohio. |
| Thomas A. Groover, | District of Columbia. |
| W. W. Grier, | District of Columbia. |
| Alfred G. Grunwell, | Virginia. |
| Pearl L. Gunckel, | Kansas. |
| John P. Gunion, | District of Columbia. |
| Oscar J. Gwynn, | Iowa. |
| James R. Hamilton, | Texas. |
| Victor Haugaard, | District of Columbia. |
| F. M. Hartsock, | District of Columbia. |
| Bernard L. Hardin, | Virginia. |
| Ralph A. Harding, | District of Columbia. |
| Avediss B. Herald, | Armenia. |
| N. N. Herbert, | District of Columbia. |
| O. B. Hess, | Pennsylvania. |
| W. Warren Hoeke, | District of Columbia. |
| Almer M. Hoadley, | District of Columbia. |
| W. R. B. Holland, | District of Columbia. |
| Abram B. Hooe, | Virginia. |
| C. Norman Howard, | Pennsylvania. |
| P. W. Huntington, | District of Columbia. |
| Paul C. Hutton, | North Carolina. |
| Montgomery Hunter, | Virginia. |
| Charles James, | District of Columbia. |
| Joseph F. James, | Ohio. |
| Joseph R. Johnson, | Virginia. |
| Frank V. Johnson, | District of Columbia. |
| Charles R. Johnson, | Delaware. |
| John E. Jones, | Ohio. |
| George F. Juenemann, | District of Columbia. |
| U. S. G. Keller, | Pennsylvania. |
| C. S. Keyser, | District of Columbia. |
| William A. Kinnan, | Michigan. |
| Frank A. Kirby, | Massachusetts. |
| John A. Koch, | Illinois. |
| Albert L. Lawrence, | Ohio. |
| Hanson T. A. Lemon, | District of Columbia. |
| Victor A. Lewis, | District of Columbia. |
| Eugene L. Le Merle, | District of Columbia. |

| Name. | Residence. |
|---|---|
| John St. John Lockwood, | District of Columbia. |
| Kate E. Lozier, | Connecticut. |
| L. Fleet Luckett, | Maryland. |
| W. McM. Luttrell, M. D., | Tennessee. |
| Charles Lucas, M. D., | Nebraska. |
| Robert L. Lynch, | Indiana. |
| Frank P. Magennis, | Pennsylvania. |
| G. H. Manville, | Connecticut. |
| William L. Masterson, | Ohio. |
| Frank A. Mazzie, | District of Columbia. |
| William Wilson Matthews, | Louisiana. |
| Robert J. McAdory, | Alabama. |
| Charles McCulloch, | Virginia. |
| Donald McDonald, | District of Columbia. |
| M. J. McIntee, | Massachusetts. |
| J. L. McIlhenny, | District of Columbia. |
| George N. McLoughlin, | Tennessee. |
| Robert A. W. McKeldin, | District of Columbia. |
| F. O. McKnew, | District of Columbia. |
| Homer S. Medford, | District of Columbia. |
| William P. Mills, A. B., | Maryland. |
| Frederick H. Morhart, | Ohio. |
| Walter Moulthrop, | District of Columbia. |
| R. T. Lawton Morgan, | District of Columbia. |
| William S. Newell, | Indiana. |
| H. Norman North, | Virginia. |
| William J. Olds, | Michigan. |
| W. C. Orr, | New York. |
| C. R. Perry, | Virginia. |
| Rolla D. Pope, | Illinois. |
| D. M. Pratt, M. D., | New York. |
| D. W. Prentiss, Jr., | District of Columbia. |
| George T. Prewitt, | Texas. |
| George F. Puffett, M. D., | Iowa. |
| Woodbury Pulsifer, A. M., | Maine. |
| Tunis C. Quick, | Virginia. |
| David E. Quinn, Ph. G., | Ohio. |
| Arthur C. Rauterberg, | District of Columbia. |
| W. H. Reeves, | Tennessee. |
| Victor B. Rench, | District of Columbia. |

| Name. | Residence. |
|---|---|
| Delos N. Reeve, | Iowa. |
| Edward E. Richardson, | Vermont. |
| Wright Rives, Jr., | Maryland. |
| A. A. Rittenowe, | Virginia. |
| W. S. Scott, | Ohio. |
| H. A. Sellhausen, | District of Columbia. |
| Henry H. Seltzer, | Pennsylvania. |
| J. Kent Shively, | Ohio. |
| William E. Sims, | South Carolina. |
| Maynard J. Simmons, | Maryland. |
| Percy G. Smith, | Maryland. |
| Hugh C. Smith, | Georgia. |
| Harry W. Smith, | Pennsylvania. |
| George R. Sorrel, | Virginia. |
| Homer L. Spaulding, | Kansas. |
| H. C. Spring, | Connecticut. |
| Edward F. Staudt, | Maryland. |
| Daniel B. Street, Jr., | District of Columbia. |
| J. Hamilton Stone, A. B., | District of Columbia. |
| George B. Stryker, | New York. |
| Milo H. Sutliff, | Utah. |
| John T. Sykes, | England. |
| Adelbert A. Taylor, | Ohio. |
| J. M. Tracy, | New York. |
| James R. Tubman, | District of Columbia. |
| William A. Tyler, | Nebraska. |
| Denny de S. Verdi, | District of Columbia. |
| William O. Wetmore, | New York. |
| Crosby C. Whitman, M. D., | California. |
| Thomas A. Whittington, | Nebraska. |
| Charles S. White, | District of Columbia. |
| William E. Whitson, | District of Columbia. |
| Arthur L. Wilson, | West Virginia. |
| Edwin P. Wolfe, A. B., | Iowa. |
| Gaylord Worstell, B. S., | Texas. |
| George W. Wood, M. D., | District of Columbia |
| W. J. Wyeth, | Illinois. |
| R. F. Yarborough, | North Carolina. |

# THE DENTAL SCHOOL.

**The Faculty.**

THE REV. SAMUEL H. GREENE, D. D.,
President.

J. HALL LEWIS, D. D. S.,
Professor of Dental Prosthetics and Dean of the Faculty.

HENRY C. THOMPSON, D. D. S.,
Professor of Operative Dentistry and President of the Faculty.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, M. D.,
Professor of Chemistry.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

VERANUS A. MOORE, M. D.,
Professor of Normal Histology.

JONATHAN R. HAGAN, D. D. S.,
Demonstrator in Charge of Infirmary.

WILLIAM L. CLARK, D. D. S.,
WALTER A. LOW, D. D. S.,
CHARLES R. RICE, D. D. S.,
Assistant Demonstrators.

**Clinical Operators.**

ROBERT B. DONALDSON, D. D. S.
HENRY B. NOBLE, SR., D. D. S.
J. CURTIS SMITHE, D. D. S.
LOUIS C. F. HUGO, D. D. S.
WALTER S. HARBAN, D. D. S.
WILLIAMS DONNALLY, D. D. S.

---

J. HALL LEWIS, D. D. S., DEAN,
1309 F Street N. W. and 1325 H Street N. W., Washington, D. C.

EMIL A. DE SCHWEINITZ, M. D.,
Secretary-Treasurer, 1325 H Street N. W.

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## DENTAL DEPARTMENT.

### Annual Announcement of the Session of 1894-'95.

The Regular Course of Lectures begins on Tuesday, October 1, 1895, and continues seven months.

The Introductory Lecture of the Course will be delivered by Dr. J. Hall Lewis, on the 1st of October, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The Faculty of the Dental Department of this University announce that in order to become eligible for graduation the student must attend three full courses of seven months each, held in different years, with such exceptions as are hereinafter stated.

The subjects of the several courses are arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry and Materia Medica, together with Practical Anatomy, Histology, Bacteriology, and such Infirmary work as is suitable for first-year students.

SECOND YEAR.—The subjects of the first year are continued, and to these are added Operative Dentistry and Prosthetic Dentistry, with more advanced Infirmary work.

THIRD YEAR.—This year is devoted *exclusively* to Operative and Prosthetic Dentistry. An examination is held at the end of each year on all subjects taught during that year.

As, however, no amount of scientific attainment can compensate for

lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of clinical experience.

A large, comfortable and well-lighted Dental Laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe-keeping of instruments belonging to the students.

The extracting room is separate from the others, and is fitted up for the proper administration of the various anæsthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of his many years' experience in Dental Practice.

The Infirmary is open every week day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of clinical material is readily available. In fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of *twenty-seven months' actual practice* in the Infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

During the past term the Infirmary has been altered and refitted and the number of chairs more than doubled. It is very complete in all its appointments. An experimental laboratory course in Metallurgy, Bridge Work, etc., has been established under the careful supervision of Dr. RICE.

## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Prosthetic Dentistry and Metallurgy.

PROFESSOR LEWIS.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered, and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught, and Bridge Work, the construction of appliances for correcting Oral Irregularities, Interdental Splints for Fractures, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor Lewis will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual every-day practice of Prosthetic Dentistry.

### Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR THOMPSON.

This Course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

### Chemistry.

PROFESSOR DE SCHWEINITZ.

The instruction in this Department embraces—

A short discussion of the principles of Physics in their relation to Chemistry, the principles of Chemical Philosophy, and the laws of Chemical Combination.

A study of the elements, metallic and non-metallic; the preparation,

lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

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The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

### Chemistry.

PROFESSOR DE SCHWEINITZ.

The instruction in this Department embraces—

A short discussion of the principles of Physics in their relation to Chemistry, the principles of Chemical Philosophy, and the laws of Chemical Combination.

A study of the elements, metallic and non-metallic; the preparation,

properties, and reaction of their different compounds and their application in Dentistry.

Organic Chemistry will be studied, special attention being paid to those organic compounds that are of practical use.

Laboratory instruction will be given in the determination of acids and bases, analyses of alloys, etc.

### Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail.

Especial pains will be taken to emphasize those truths that have a known practical value.

### Materia Medica and Therapeutics.

PROFESSOR PRENTISS.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The Lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmaceutical Laboratory is established in connection with this Chair, in which the students are taught the methods of making the different preparations, such as infusions, decoctions, tinctures, syrups, and the like.

They are also taught the compounding of prescriptions, the proper excipients for pills, incompatibles (especially such as produce dangerous compounds), and are expected to actually compound working formulæ.

### Anatomy.

PROFESSOR SHUTE.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors to the Chair of Anatomy will prepare the subject for the Lecturer.

The Demonstrator of Anatomy and his Assistants give their personal attention to the students in the dissecting-room.

### Practical Anatomy.

The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied free of charge to the student. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present *at stated hours* to give his personal attention to the students and properly instruct his classes in their dissections.

### Histology.

The Histological Course embraces a thorough study of the general use of the microscope and a special examination of the origin and formation of the teeth, the minute parts of these organs, and the surrounding tissues.

### Bacteriology.

This course will embrace a comprehensive study of the bacteria of the mouth, which have relation to the diseases of that region.

### Clinical Operations.

One evening in each week a member of the Corps of Clinical Operators will lecture upon some subject of general interest in Dentistry, and upon the following Saturday, whenever admissible, will give in the Infirmary a practical demonstration of the subject mentioned.

Special attention is called to the fact that the members of the Clinical Corps take an *active* part in the College instruction, each member giving several lectures on special subjects during the Winter Course, besides holding clinics at the Infirmary.

### Requirements for Matriculation and Graduation.

*Matriculants* will be required to show, either by examination or by the exhibit of a diploma or certificate from some reputable institution of learning, that they have received a good English education.

Dr. O. A. M. McKIMMIE, of the Columbian University, will conduct the entrance examination, when such is required, at 1333 N street N. W.

*Candidates for Graduation* must have attended three full Courses of Lectures, each of SEVEN months' duration, and three courses of Clinical instruction in this institution, during the regular winter term and in separate years, with the exceptions noted below.

The following is considered as an equivalent to one course in this College:

A diploma from a recognized medical school, undergraduate tickets of the same, or satisfactory evidence of having passed first-year examination in some other reputable dental school.

The following is considered as the equivalent of two courses in this College:

A diploma from a reputable dental college or evidence of having passed the second-year examination in the same.

Before becoming eligible for graduation, all medical graduates and students must take two full courses upon Operative and Prosthetic Dentistry, and conform to the usual Infirmary requirements.

Graduates from schools of pharmacy may enter the Junior Class after passing a satisfactory examination in the first-year studies.

Students are examined at the end of the regular course upon all subjects taught them during that course.

Should the student fail in his examination in the spring, he may be re-examined in the fall.

Students can go up for examination only in the spring and fall and upon the dates regularly selected for that purpose.

All fees must be paid and Infirmary requirements complied with before the student can present himself for examination.

Students must enter before or during the month of October for the regular Winter Course. They may register at any time during the nine months' Infirmary Course, and thus begin Infirmary practice at once upon payment of $25, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary*, and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall afterward be deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

### Faculty Prize.

A prize will be given by the Faculty to the graduate passing the best examination in *all* branches and having the best Infirmary record. At the last commencement the prize was awarded to Walter A. Low, Virginia.

### Fees, etc.

Annual tuition fee..... $100 00

The above includes all the Tuition expenses. There are no *extras* whatever. The Dissection Material, Chemicals, Instruction in the Histological, Pharmaceutic, and Chemical Laboratories and Dental Infirmary are all furnished free of charge to the students.

Each student must furnish his own Books and Dental Instruments.

The student is required to make a payment upon registering, and twenty-five dollars must be paid before he can avail himself of Laboratory and Infirmary instruction.

All fees should be paid to the Secretary-Treasurer, Dr. DE SCHWEINITZ, at 1325 H street.

Candidates for graduation in the Dental School who desire to obtain a

medical degree thereafter may be admitted to the medical examination on the primary branches at the termination of their second Dental Course, provided they give written notice to the Dean of their intention so to do one month before the spring examinations, and provided also that they have complied with the requirements of the Medical School as regards Dissection, the study of Histology, etc.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union.

Students requiring further information are requested to communicate with the Dean of the Faculty.

J. HALL LEWIS, DEAN,
1309 *F Street N. W. Washington, D. C.*

The Dean can be seen personally at 1309 F street, on any week day, from 3.30 to 4.30 p. m., and also at the College Building, 1325 H street N. W., on Monday, Wednesday, and Friday of each week from October 1 to May 1, between the hours of 6.30 and 8 o'clock p. m.

**Libraries, Army Medical Museum, etc.**

The location of the University at the seat of the National Capital affords several striking advantages to the dental student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office—all of which contain rare and costly works in every department of science and literature.

The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these, for study or reference, on any week day from 9 to 3 o'clock.

The Army Medical Museum, situatad on B street, corner Seventh street, S. W., is also open for daily inspection, with its unrivaled collection of pathological specimens illustrating the result of disease in every form. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe the effect of civilization and race admixture upon the dental organs.

Apart from these considerations, students from a distance have the opportunity of spending the winter profitably at the seat of the National Government during the session of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to

a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and, of special interest to the medical and dental student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the Grounds of the Agricultural Department, where the student of Botany may find a rare collection of medical plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of every conceivable form of dental instruments may be daily inspected, thus affording to the student an invaluable opportunity for studying the mechanical contrivances used in dental practice that is not to be obtained in any other city.

### University Lectures.

Students of the Dental School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than Law Lectures, given in the University Hall, by applying to the Dean.

### Students of Dentistry.

FRESHMEN.

| | |
|---|---|
| W. F. Ankeney, | Maryland. |
| Paris E. Brengle,* | Maryland. |
| V. P. Berry,* | Virginia. |
| Damon A. Binkert, | Illinois. |
| Eppa H. Coumbe, | District of Columbia. |
| T. B. Cochran, | Virginia. |
| E. M. Carter, | District of Columbia. |
| A. Finley Chumm,* | North Carolina. |
| Paul W. Evans,* | District of Columbia. |
| B. Avery Gardner,* | District of Columbia. |
| Hopkins Gibson, | West Virginia. |
| George E. Hurley, | Massachusetts. |
| Michael J. McIntee, | Massachusetts. |
| J. F. Oattis, | Georgia. |
| J. P. Price, | North Carolina. |

| | |
|---|---|
| John F. Pearson,* | District of Columbia. |
| W. A. Rawson, | Michigan. |
| Arthur L. Russell, | Michigan. |
| Oliver C. Sabin, Jr., | Nebraska. |
| William B. Sabin, | Illinois. |
| William B. Shaw, | District of Columbia. |
| C. J. Sheridan, | New York. |
| John M. Tracey, | New York. |
| J. Thornton Watson, | California. |
| Orin L. Woodworth, | New York. |
| Elmer F. Yount, | District of Columbia. |
| J. R. Yates, | Virginia. |

Freshman ..... 27

JUNIORS.

| | |
|---|---|
| Frank A. Austin, | District of Columbia. |
| Lorenzo Joe Broughton, | North Carolina. |
| Richard Vermillion Burrey, | District of Columbia. |
| A. E. Bain,* | Texas. |
| Edward C. Concklin, | New York. |
| Joseph Lawrence Egan, | Connecticut. |
| E. Powell Frazer, | Georgia. |
| A. J. Gibson, | Alabama. |
| Fessenden F. Hicks, | Maryland. |
| Wilmer Scott Hall, | Alabama. |
| Llewellyn Jordan, M. D., | Mississippi. |
| S. C. Luckett, | Texas. |
| James P. Moore, | Illinois. |
| Pearce Thompson, | Kentucky. |
| James Levi Whiteside, | Maryland. |
| Howard Augusta Wiltberger, | Pennsylvania. |
| Richard Washington, M. D., | Virginia. |

Juniors..... 17

SENIORS.

| | |
|---|---|
| Ferdinando Aguilera, | U. S. of Colombia. |
| Joseph Cohen, | Texas. |
| James White Davis, | Maine. |
| William Sherman Gustin, | Ohio. |

* Not in constant attendance.

| | |
|---|---|
| William Hislop, | Ontario. |
| Robert Edmond Lee Hackney, | California. |
| Henry Knowles, | Georgia. |
| Joseph Everett Keene, | District of Columbia. |
| Hubert Lynn King, | District of Columbia. |
| Eugene Lyman Le Merle, | District of Columbia. |
| Harry Bertram Moore, | District of Columbia. |
| Charles Wesley Orr, | New York. |
| William Kibard Petty, | Virginia. |
| Harry Parsons, | New York. |
| James Reverdy Stewart, | Virginia. |
| William Henry Trail, | Maryland. |
| Wines E. Thornton,* | Vermont. |
| Ernest Varela, | California. |
| I. G. Warfield, | Maryland. |

Seniors ..... 19

Students of dentistry ..... 63

**Graduates in Dentistry.**

| | |
|---|---|
| Ferdinando Aguilera, | U. S. of Colombia. |
| Joseph Cohen, | Texas. |
| James White Davis, | Maine. |
| William Sherman Gustin, | Ohio. |
| William Hislop, | Ontario. |
| Robert E. L. Hackney, | California. |
| Joseph Everett Keene, | District of Columbia. |
| Henry Knowles, | Georgia. |
| Eugene Lyman Le Merle, | District of Columbia. |
| Charles Wesley Orr, | New York. |
| William K. Petty, | Virginia. |
| Harry Parsons, | New York. |
| William Henry Trail, | Maryland. |
| Ernest Varela, | California. |
| Israel G. Warfield, | Maryland. |

Graduates ..... 15

* Not in constant attendance.

# THE LAW SCHOOL.

## The Faculty.

THE REV. SAMUEL H. GREENE, D. D.,
PRESIDENT.

THE HON. JOHN M. HARLAN, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Commercial Paper, and of Torts.

THE HON. WALTER S. COX, LL.D.,
(Associate Justice of the Supreme Court of the District of Columbia,)
Professor of the Law of Real and Personal Property, of Contracts, and of Crimes and Misdemeanors.

THE HON. WILLIAM A. MAURY, LL.D.,
(Sometime Assistant Attorney General of the United States,)
Professor of Equity Jurisprudence, of Common Law and Equity Pleading, and of the Law of Evidence.

THE HON. DAVID J. BREWER, LL.D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Law of Corporations.

PROF. G. H. EMMOTT, LL.M.,
(of the Johns Hopkins University,)
Lecturer on the Civil Law.

HENRY E. DAVIS, LL.M.,
(Sometime Assistant Attorney of the District of Columbia,)
Lecturer on the History of Law.

WILLIAM F. MATTINGLY, ESQ.,
(of the Washington Bar,)
Lecturer on Practical Commercial Law.

THE HON. ANDREW C. BRADLEY,
(Associate Justice of the Supreme Court of the District of Columbia,)
Lecturer on Criminal Law and on Criminal Pleading and Practice.

THE HON. BENJAMIN BUTTERWORTH,
(Sometime United States Commissioner of Patents,)
Professor of the Law of Patents.

WILLIAM G. JOHNSON, LL.M.,
(of the Washington Bar,)
Professor of Legal Catechetics, Common-law Practice, and Judge of the Moot Court.

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**Court of Appeals.**

WILLIAM F. MATTINGLY, *Chief Justice.*
HENRY E. DAVIS, CHARLES W. NEEDHAM, } *Associate Justices.*

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ROBERT H. MARTIN,
Secretary and Treasurer.

The Law School of the Columbian University is held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

**Admission.**

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not spent one year either at this or some other law school or performed a corresponding amount of study under the direction of a member of the bar.

**Matriculation.**

No fee is charged for Matriculation, but the fee for at least one month's tuition must be paid in advance on registration. The register will be open for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

### Sessions.

The entire course of study in the undergraduate department embraces two years. The annual session begins on the first Wednesday of October and ends on the Tuesday next before the second Wednesday in June. The exercises of the School begin daily at 6 o'clock p. m., an arrangement which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

### Course of Instruction.

The School has three classes, a Junior and a Senior in the undergraduate department and a graduate Class in Practice.

### Junior Class.

PROFESSOR COX,

(Associate Justice of the Supreme Court of the District of Columbia.)

The instructor of the Junior Class, aiming to secure for his pupils as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries, Parsons on Contracts, and Byles on Bills, as text-books, to be carefully read and studied. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teachings of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study of law; and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

The students in both Junior and Senior classes are required to attend this course.

**On Domestic Relations, on Commercial Paper, and on Torts.**

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

Mr. Justice HARLAN gives a course of lectures on each of these subjects. While he follows the general order and arrangement in respect to them pursued respectively in Schouler's Domestic Relations, Byles on Bills, and Pollock on Torts, there is no mere study of these as text-books. Mr. Justice HARLAN'S aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of foundation principles. This course extends through the whole scholastic year, and the attendance of both Senior and Junior Classes is required.

**The Senior Class.**

PROFESSOR MAURY,

(Sometime Assistant Attorney General of the United States.)

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text-book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleadings and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleading and Practice in Equity being the text-books used under these heads. The closing part of the course is occupied with the law of Partnership considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies, Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of

review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text-book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

### Legal Catechetics.

PROFESSOR WILLIAM G. JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on four days of each week) conducted by Professor WILLIAM G. JOHNSON, a graduate of the School, who is familiar with its methods of instruction. His "quizzes" are additional and supplemental to those of Professors Cox and MAURY.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text books and the lectures, the student is called to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *viva voce* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

### Constitutional Law.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

A course of lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN, of the Supreme Court of the United States.

In this course the student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an

orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examination of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of the instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These lectures are delivered every Saturday and are open to both the graduate and undergraduate classes of the School.

### Law of Corporations.

PROFESSOR BREWER,

(Associate Justice of the Supreme Court of the United States.)

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So much of the business, and the great business, of the day is done by corporations that they furnish a large amount of the litigation; and, because of such importance, special attention is given to it in this School. An extensive course of lectures is delivered by Mr. Justice BREWER, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of today, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

### International Law.

PROFESSOR ——.

After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its historical growth, the instructor seeks to give a brief exposition of the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications, alike to the conduct of nations and the conduct of individuals.

These Lectures are open to both the graduate and the undergraduate classes of the School.

### The Civil Law.

PROFESSOR EMMOTT.

Professor GEORGE H. EMMOTT, A. M., LL. M., of the Johns Hopkins University, a graduate of the University of Cambridge, England, delivers every year a course of Lectures on the Civil Law, in which the principles of the Roman jurisprudence are expounded under given heads, as well for their intrinsic historical interest as for the light they shed on English Common Law.

### Law of Patents.

PROFESSOR BUTTERWORTH.

The Hon. BENJAMIN BUTTERWORTH delivers a course of Lectures on the Law of Patents, which embraces the history of the origin, growth, and development of the patent and trade-mark system, the constitutional provisions with reference thereto, and the legislation of Congress in that behalf; next, an analysis of the statutes and the practice under them. This includes a discussion of what may be the subject-matter of and the steps necessary to obtain a patent; also what constitutes a trade-mark and the steps necessary to secure registration thereof. Next, the proceedings in the Patent Office, and following that the rights secured to a patentee by letters patent, the rights of assignees, and, last, the enforcement of those rights in the courts, this including the form of pleading, the measure of relief, etc.

## GRADUATE COURSE IN PRACTICE.

A Graduate course of instruction in Common Law Practice and in Equity Pleading and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors WILLIAM A. MAURY and WILLIAM G. JOHNSON, as a supplement to the undergraduate course of the Law School. The course leads to the degree of Master of Laws.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleading and in the mode of conducting an equity case. The text-book employed will be Mitford and Tyler's Equity Pleading and Practice.

During a considerable portion of the term Professor MAURY holds a chancery court, in which students are exercised in equity pleading and practice and all the details in the conduct of equity causes.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the Courts of the United States.

In the Common Law Branch the students use, under the direction of Professor JOHNSON, a work on Practice prepared by Professor Cox, after which they are exercised in the conduct and trial of cases, and thus taught to apply their theoretical learning in pleading, practice, and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's Law of *Nisi Prius*.

During more than half the term the exercises are those of a *Nisi Prius* Moot Court, presided over by Professor JOHNSON.

In this course, statements of facts are furnished to the students, who are required to bring and defend proceedings in equity and suits at law thereon, two students being assigned as counsel on each side. By this means they are required to determine the form of action or proceeding, to prepare the pleadings, to produce the evidence, &c., and actually to try the cases, and are thus exercised in all the features and details of the preparation and conduct of an action at law or proceeding in equity as they would be in actual practice.

### Court of Appeals.

Supplementary to this is the Court of Appeals, to which these cases may be taken and in which the student is instructed and exercised in the course of procedure by writ of error and appeal and the preparation of records on appeal, and the preparation of briefs and argument of causes in appellate courts, the purpose being to drill the student in all the details of a case in actual practice, from the presentation of the facts by the client to the final disposition thereof in the court of last resort.

Candidates for admission to this Graduate course are required to furnish evidence that they have been diligent and successful students of law for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission to the course. At the end of the course all such students who shall sustain a satisfactory examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied; but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition

precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of eight months, is *fifty dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

### Criminal Law and Procedure.

The Hon. ANDREW C. BRADLEY, Associate Justice of the Supreme Court of the District of Columbia, delivers a series of Lectures on Criminal Law and Criminal Procedure. These lectures will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, and will treat particularly of other principles and of offenses which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The Lectures upon Criminal Procedure will treat of pleading and practice in criminal cases, and in discussing the procedure at the trial of criminal cases the difference between criminal and civil practice in regard to the rules of evidence will be pointed out.

The course is open to all the classes of the School.

### Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to all the classes of the School.

### The History of Law.

Professor HENRY E. DAVIS, A. M., LL.M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and the United States.

The course is open to all the classes of the School.

### Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This Society holds public exercises under the auspices of the University at the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

### Library and Reading-room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, books of reference, etc., is open for purposes of study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. Attached to the Library is a reading-room supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

The Library of the Department of Justice, comprising over 22,000 volumes, is open to law students for reference or study and is situated within a two-minutes walk of the University.

### Special Facilities.

Besides this Law Library of the Department of Justice, the Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurisprudence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

### Examination and Graduation.

All candidates for graduation are required to pass a general examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who, having passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

### Prizes.

A prize of $100, called "The Parker Prize," in honor of its donor, MYRON M. PARKER, Esq., is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of $50, called "The Britton Prize," in honor of its founder, ALEXANDER T. BRITTON, Esq., is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of $40, one of $30, and one of $20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior Class as shall compete for them and shall pass a successful examination for the degree of Bachelor of Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

### Prize Men in 1893-'94.

Parker Prize, JAMES MCILVAINE GRAY.
Britton Prize, ALBERT F. FLINT.
First Essay Prize, JAMES MCILVAINE GRAY.
Second Essay Prize, WALTER H. RYLAND.
Third Essay Prize, EDWARD T. LEE.
First Debater's Prize, ADOLPHE MONELL SAYRE.
Second Debater's Prize, JOHN HENRY THOMAS.

### Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom they and the Faculty may have selected for that purpose.

### Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* for a single year or *one hundred and fifty dollars* for two scholastic years, payable in advance, half yearly, or in monthly install-

ments, at the option of students. Students who devote three years or more to the preparation for graduation may have this privilege by the payment of *two hundred dollars* for the entire course. If a student shall for any cause intermit the studies of either his first or his second year at any point before graduation, or if, at the close of his second year, he shall fail, for any cause, to be graduated, the payments he may have made during either or both of these years will not work exemption from the regular dues of any subsequent year in which he may attend the School, but it shall always be open to him to profit by the benefits of the three years' rule. A charge of *ten dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin Board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

### Admission to the Bar.

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the time spent in the Law School of the University is counted as part of the period of study required for admission.

A society has recently been organized, under the name of the Columbian Law Society, by graduates of the Law School, for the investigation and discussion of practical legal questions and principles, and particularly those relating to the District of Columbia. Regular meetings of the Society are held in the University Building on the second Friday of every month except June, July, and August. All graduates of the Law School who have been admitted to the bar of the District of Columbia are invited to become members of this Society. Further information can be obtained from the President of the Society, Mr. Geo. Francis Williams, 452 D street northwest, or from its Secretary, Mr. Louis A. Rosafy, 505 Second street northeast.

### University Lectures.

Students of the Law School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than law lectures, given in the University Hall by applying to the Dean.

## PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting of June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

At the same time the President of the University was instructed to visit the leading universities of Europe in which jurisprudence is taught according to the comparative method, in order to collect available information under this head for the use of the Board. The organization of the new School has been arrested for the want of adequate endowment, but a beginning in that direction will, it is hoped, be made during the next scholastic year.

In this new School it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions (after the manner of Freeman in his "Comparative Politics") and along the line of legal institutes (after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal jurisprudence, of International Law, of Law Reform and of Codification.

## Text-books Used in the Columbian University Law School.

### JUNIOR CLASS.

| | |
|---|---|
| Blackstone's Commentaries (Sharswood's edition), 2 volumes | $7 50 |
| Kent's Commentaries (Holmes and Barnes's edition), 4 volumes | 12 00 |
| " " or (Lacy's edition), 4 volumes | 10 00 |
| Parsons on Contracts, 3 volumes | 16 00 |
| Cox's Questions | 2 50 |
| Byles on Bills | 5 50 |
| Cooley's Constitutional Law | 3 00 |

*Recommended.*

| | |
|---|---|
| Schouler's Domestic Relations | 5 50 |
| Pollock on Torts | 2 50 |

### SENIOR CLASS.

| | |
|---|---|
| Stephen on Pleading (Tyler's edition) | 2 50 |
| Greenleaf on Evidence, volume 1 | 5 50 |
| Smith's Manual of Equity | 3 00 |
| Mitford and Tyler's Equity Pleading | 5 00 |

### GRADUATE COURSE.

| | |
|---|---|
| Cox's Practice | 3 00 |
| Mitford and Tyler's Equity Pleading | 5 00 |
| Archbold's Law and Nisi Prius, 2 volumes | 5 00 |

Good second-hand copies of the books used in the Junior Class can be procured from $20 to $45, and in the Senior Class from $8 to $15.

**Schedule of Lectures in the Law School, 1894–'95.**

| Days. | Hours. | Classes. | Professors. |
|---|---|---|---|
| Monday..... | 6 to 7 .... | Senior Class ..... | W. A. Maury. |
| Monday..... | 7 to 8 .... | Post-graduate Class ..... | W. A. Maury. |
| Monday..... | 8 to 9 .... | Post-graduate Class ..... | W. G. Johnson. |
| Tuesday .... | 6 to 7 .... | Junior Class ..... | W. S. Cox. |
| Tuesday .... | 7 to 8 .... | Quiz Junior Class..... | W. G. Johnson. |
| Wednesday.. | 6 to 7 .... | Senior Class ..... | W. A. Maury. |
| Wednesday.. | 7 to 8 .... | Post-graduate Class ..... | W. A. Maury. |
| Wednesday.. | 7 to 8 .... | Quiz Senior Class ..... | W. G. Johnson. |
| Wednesday.. | 8 to 9 .... | Post-graduate Class ..... | W. G. Johnson. |
| Thursday.... | 6 to 7 .... | Junior Class..... | W. S. Cox. |
| Thursday.... | 7 to 8 .... | Quiz Junior Class..... | W. G. Johnson. |
| Friday ..... | 6 to 7 .... | Senior Class ..... | W. A. Maury. |
| Friday ..... | 7 to 8 .... | Post-graduate Class ..... | W. A. Maury. |
| Friday . .... | 7 to 8 .... | Quiz Senior Class ..... | W. G. Johnson. |
| Saturday .... | 6 to 7 .... | Junior Class ..... | W. S. Cox. |
| Saturday .... | 7 to 8.30.. | Junior and Senior Classes .. | J. M. Harlan. |

**Extraordinary Lectures.**

Civil Law, Professor G. H. EMMOTT, Fridays at 8 p. m., beginning October 12.

Corporation Law, Professor D. J. BREWER, Thursdays at 8 p. m., beginning October 25.

Criminal Law, Professor A. C. BRADLEY, Tuesdays at 8 p. m. during December.

Patent Law, Prof. BENJAMIN BUTTERWORTH, Thursdays at 8 p. m. during February.

Commercial Law, Professor W. F. MATTINGLY, Wednesdays at 8 p. m. during January.

## STUDENTS OF LAW.

### Graduate Class in Practice.

| Name. | Address. |
|---|---|
| Frederick Achenbach, Missouri,<br>LL.B., Columbian University, 1894. | War Department. |
| Edgar Allan, Jr., Virginia,<br>LL.B., Columbian University, 1894. | 1501 11th St., N.W. |
| Noel W. Barksdale, Tennessee,<br>LL.B., Georgetown University, 1890.<br>LL.M., Georgetown University, 1891. | 507 4th St., N.W. |
| William Wesley Bedford, California,<br>LL.B., Columbian University, 1894. | 1451 N St., N.W. |
| Edwin Sanford Bethel, Illinois,<br>LL.B., Columbian University, 1894. | 232 9th St., N. E. |
| W. R. Blackford, District of Columbia,<br>LL.B., Columbian University, 1894. | 714 North Carolina Ave., S. E. |
| Samuel Hazen Bond, District of Columbia,<br>LL.B., Columbian University, 1894. | Smithsonian Institution. |
| Joseph Aloysius Burkart, District of Columbia,<br>LL.B., Columbian University, 1894. | 1113 9th St., N.W. |
| P. E. Cox, Tennessee,<br>LL.B., Columbian University, 1894. | House of Representatives P. O. |
| Percy S. Crowe, Indiana,<br>LL.B., Columbian University, 1894. | 715 3d St., N. E. |
| Allan A. Davis, Tennessee,<br>LL.B., Columbian University, 1894. | War Department. |
| Frederick Dennett, North Dakota,<br>LL.B., Columbian University, 1894. | Senate P. O. |
| Victor Brown Dolliver, Iowa,<br>A. B., Cornell University, 1889.<br>LL.B., Columbian University, 1894. | The Hamilton. |
| Frederic S. Doyle, Pennsylvania,<br>LL.B., Columbian University, 1894. | 1902 3d St., N.W. |
| J. Q. Eaton, District of Columbia,<br>A. B., Dartmouth College, 1893.<br>LL.B., Columbian University, 1894. | The Concord. |
| Selden Marvin Ely, Virginia,<br>LL.B., Columbian University, 1894. | 221 E St., N.W. |

| Name. | Address. |
|---|---|
| Alf. M. Fuller, West Virginia,<br>LL.B., Columbian University, 1894. | War Department. |
| Orlando W. Goodwin, Wisconsin, | 515 F St., N.W. |
| James McIlvaine Gray, Nebraska,<br>LL.B., Columbian University, 1894. | 1219 8th St., N.W. |
| Walter R. Hensey, District of Columbia,<br>LL.B., Columbian University, 1894. | 1300 F St., N.W. |
| Charles J. Hepburn, Pennsylvania, | 1725 H St., N.W. |
| A. H. Hiller, Michigan,<br>Ph. B., Hillsdale College, Michigan, 1889.<br>Ph. M., Hillsdale College, Michigan, 1893.<br>LL.B., Columbian University, 1894. | 653 A St., N. E. |
| Frank H. Hitchcock, Massachusetts,<br>A. B., Harvard, 1891.<br>LL.B., Columbian University, 1894. | 1009 13th St., N.W. |
| Aylett T. Holtzman, Virginia,<br>LL.B., Columbian University, 1887. | 1321 F St., N.W. |
| Francis Christian Huebner, Ohio,<br>LL.B., Columbian University, 1894. | 1226 Massachusetts Ave., N.W. |
| Guy Hamilton Johnson, District of Columbia,<br>LL.B., Columbian University, 1894. | 1706 9th St., N.W. |
| T. C. Kelly, Pennsylvania,<br>LL.B., Columbian University, 1894. | 1412 15th St., N.W. |
| Frank Kyselka, Michigan,<br>LL.B., Columbian University, 1894. | 431 G St., N.W. |
| John Wesley Langley, Kentucky,<br>LL.B., Georgetown University.<br>LL.M., National University. | 420 6th St., N.W. |
| Reeve Lewis, District of Columbia,<br>LL.B., Columbian University, 1894. | 620 F St., N.W. |
| Harris Lindsley, District of Columbia,<br>LL.B., Columbian University, 1894. | 1774 Massachusetts Ave., N.W. |
| J. Arthur Lynham, Virginia,<br>LL.B., Columbian University, 1893. | 29 B St., N.W. |
| R. S. McCall, Missouri,<br>LL.M., Georgetown University, 1890. | 918 I St., N.W. |

| Name. | Address. |
|---|---|
| William C. Mayo, Virginia,<br>LL.B., Columbian University, 1894. | State Department. |
| E. Elmer Mitchell, Iowa,<br>LL.B., National University, 1893.<br>LL.M., National University, 1894. | 318 3d St., N.W. |
| W. B. Mixon, Mississippi, | 707 6th St., N.W. |
| Gales P. Moore, District of Columbia,<br>LL.B., Columbian University, 1894. | Atlantic Building. |
| James A. Oldfield, West Virginia,<br>LL.B., Columbian University, 1894. | Hinton, West Virginia. |
| E. H. Parry, District of Columbia,<br>LL.B., Columbian University, 1894. | Loan and Trust Building. |
| Isaac Pearson, South Dakota,<br>LL.B., University of Michigan, 1883. | 1027 22d St., N.W. |
| Seth V. Peck, Iowa,<br>LL.B., Columbian University, 1894. | 325 F St., N. E. |
| U. G. Perry, Pennsylvania,<br>LL.B., Columbian University, 1894. | 627 Morris St., N. E. |
| William A. Pless, Tennessee, | 430 M St., N. W. |
| Will Pickett Robinson, West Virginia, | 708 13th St., N.W. |
| Albert Morris Sames, Illinois,<br>LL.B., University of Wisconsin. | 1820 13th St., N.W. |
| Harold N. Saxton, New York,<br>LL.B., Columbian University, 1894. | 804 I St., N.W. |
| H. C. Sheridan, Louisiana,<br>LL.B., Columbian University, 1894. | 1724 Pennsylvania Ave., N.W. |
| Albert D. Spangler, Pennsylvania,<br>LL.B., Columbian University, 1894. | Pension Office. |
| Luther F. Speer, Pennsylvania,<br>LL.B., Columbian University, 1894. | 115 7th St., N. E. |
| Robert A. Stickney, Florida, | 822 Connecticut Ave., N.W. |
| Julius W. Stuart, South Carolina,<br>LL.B., Columbian University, 1894. | 1226 15th St., N.W. |
| Harry Clay Surguy, Ohio,<br>LL.B., Columbian University, 1894. | War Department. |
| Seth Elliott Tracy, Texas,<br>LL.B., Columbian University, 1894. | 1718 Corcoran St., N.W. |
| Harry John Van Der Beek, New York,<br>LL.B., Columbian University, 1894. | 813 12th St., N.W. |
| Walter Winter Warwick, Ohio,<br>LL.B., Cincinnati Law College, 1890. | Fredonia Hotel. |

| Name. | Address. |
|---|---|
| Fletcher White, Ohio, | 705 K St., N.W. |
| John Chalmers Wilson, Maryland, LL.B., Columbian University, 1894. | 930 F St., N.W. |

Graduate students..... 57

**Seniors.**

| Name. | Residence. |
|---|---|
| R. F. Able, South Carolina, | 911 M St., N.W. |
| Clarence A. Abrams, Texas, | National Hotel. |
| William J. Acker, District of Columbia, | 1414 H St., N.W. |
| Brainard Avery, Vermont, | Senate P. O. |
| Morris Bien, California, B. S., University of California, 1879. | General Land Office. |
| Cornelius C. Billings, Vermont, | 1313 T St., N.W. |
| Michael F. Blenski, Wisconsin, | Weather Bureau. |
| Andrew Y. Bradley, District of Columbia, | 2013 Q St., N.W. |
| Charles A. Brown, Ohio, | House of Representatives P. O. |
| Lewis C. Brown, New York. | 207 E St., N.W. |
| W. E. Burleigh, New Hampshire, | 1301 N St., N.W. |
| M. K. Campbell, Illinois, | 708 11th St., N.W. |
| D. J. Carr, Connecticut, | 1706 F St., N.W. |
| George H. Chandlee, District of Columbia, | 1223 Vermont Ave., N.W. |
| Howard L. Christman, District of Columbia, | 1337 Corcoran St., N.W. |
| John Barber Clark, Jr., District of Columbia, | 801 C St., S.W. |
| R. E. Claughton, Virginia, | 1415 G St., N.W. |
| Alan Ogilvie Clephane, District of Columbia, | 1225 K St., N.W. |
| John M. Coit, South Carolina, B. S., University of South Carolina. | 1213 Q St., N.W. |
| Walter T. Colquitt, Georgia, | Congressional Hotel. |
| John S. Copeland, Arkansas, | 312 C St., N.W. |
| Arthur F. Cosby, District of Columbia, A. B., Harvard, 1894. | 1808 Massachusetts Ave., N.W. |
| Jesse Padon Crawford, Kentucky, | Bureau of Education. |
| J. A. E. Criswell, New York, | 1505 Vermont Ave., N.W. |
| Alfred Newton Dalrymple, District of Columbia, | 1829 M St., N.W. |

| Name. | Address. |
|---|---|
| William R. Davis, New York, | 473 M St., N.W. |
| John E. Dawson, Massachusetts, | 1131 5th St., N.W. |
| Hampton Y. Denman, Jr., District of Columbia, | 1623 16th St., N.W. |
| W. B. De Pue, Michigan, | Department of Justice. |
| Henry Donan, Kentucky, | 721 12th St., N.W, |
| Benjamin A. Enloe, Jr., Tennessee, | 1344 Vermont Ave., N.W. |
| Harry Carle Evans, Iowa, | 1432 Florida Ave., N. W. |
| John R. Fellows, Jr., New York, | 1401 Massachusetts Ave., N.W. |
| George C. Fraser, District of Columbia, | 1701 20th St., N.W. |
| S. W. Gambrill, Maryland, | 1012 13th St., N.W. |
| L. William Gammon, New York, | 2032 G St., N.W. |
| Don Eujenio Gana, Chile, Ph. B., University of Chile, 1893. | Chilean Legation. |
| D. E. Garges, District of Columbia. | 713 N. C. Ave., S. E. |
| H. Prescott Gatley, District of Columbia, | 1833 Larch St., N.W. |
| Frank Ferdinand Gentsch, Ohio, | 226 I St., N.W. |
| John C. Goodfellow, District of Columbia, | 1711 De Sales St., N.W. |
| Truxtun Goodrell, District of Columbia, | 1823 M St., N.W. |
| Orlando W. Goodwin, Wisconsin, | 515 F St., N.W. |
| Arthur P. Gorman, Jr., Maryland, | 1432 K St., N.W. |
| Harvey B. Gram, Ohio, | 1226 Massachusetts Ave., N.W. |
| John G. Gray, Delaware, Ph. B., Delaware College, 1883. | 1005 N. H. Ave., N.W. |
| C. T. Harris, North Carolina, | 1311 H St., N.W. |
| George C. Hazelton, Jr., District of Columbia, | 5 B St., N.W. |
| John H. Hazelton, District of Columbia, A. B., Johns Hopkins University, 1893. | 5 B St., N.W. |
| Julius V. Hoeffler, Ohio, | 915 I St., N.W. |
| Arthur M. Hood, Indiana, B. S., Rose Polytechnic Institute, 1893. | 501½ Maple Ave., N.W. |
| Herman R. Howenstein, District of Columbia, | 1338 U St., N.W. |
| Thomas L. Hume, District of Columbia, | 3319 P St., N.W. |
| Earle A. Humphrey, North Carolina, | 918 F St., N.W. |
| A. Roland Johnson, District of Columbia, | 1706 9th St., N.W. |
| Eugene A. Jones, District of Columbia, | 2016 F St., N.W. |

| Name. | Address. |
|---|---|
| Lee Mason Jordan, Georgia, | 219 East Capitol St. |
| Carter Brewster Keene, Maine, | 1402 L St., N.W. |
| Harry G. Kimball, District of Columbia, B. S., Amherst College, 1893. | 620 North Carolina Ave., S.E. |
| Arthur Frank Kinnan, Texas, B. A., Michigan State College. | Patent Office. |
| Cyrus M. Lane, Missouri, | 458 C St., N.W. |
| Rufus H. Lane, Ohio, Graduate U. S. Naval Academy, 1891. | Marine Barracks. |
| Alexander D. Lunt, New York, B. S., Worcester Polytechnic Institute, 1891. M. E., Cornell University, 1892. M. M. E., Cornell University, 1893. | 1015 L St., N.W. |
| Ormsby McCammon, District of Columbia, | 1324 19th St., N.W. |
| A. W. McGregor, Texas, | 907 13th St., N.W. |
| Marvin M. McLean, Texas, B. L., University of Texas. | 813 12th St., N.W. |
| C. K. Macey, New York, | 1119 I St., N.W. |
| E. B. Markham, District of Columbia, | Bennings Road, N. E. |
| C. Carroll Martin, District of Columbia, | 1121 12th St., N.W. |
| C. A. L. Massie, Georgia, A. M., University of Tennessee. | University Club. |
| J. A. Mathews, Illinois, | 907 Westminster St., N.W. |
| Edgar H. May, District of Columbia, | 2119 F St., N.W. |
| George A. H. Mills, New York, | 1115 9th St., N.W. |
| W. B. Mixon, Mississippi, | 707 6th St., N.W. |
| George M. Moore, Missouri, | Harrison Flats. |
| Joel Nelson Morris, District of Columbia, | 909 M St., N.W. |
| Edwin Alonza Niess, Pennsylvania, | 1008 F St., N. E. |
| Francis Nye, District of Columbia, | 936 O St., N.W. |
| Henry Orth, Jr., District of Columbia, | 1011 L St., N.W. |
| Isaac B. Owens, Maryland, | Hyattsville, Md. |
| A. J. Pearson, Jr., Ohio, | 6 8th St., S. E. |
| D. T. Pierce, Jr., District of Columbia, | 1328 11th St., N.W. |
| Grahame H. Powell, New York, | 1404 H St., N.W. |
| Jesse W. Rawlings, District of Columbia, | 1908 H St., N.W. |
| Will-Pickett Robinson, West Virginia, | 708 13th St., N.W. |
| Albert Thorpe Ryan, Idaho, | 1230 13th St., N.W. |

| Name. | Address. |
|---|---|
| Adolphe Monell Sayre, New York, | 719 18th St., N.W. |
| Emil Charles Schneider, Illinois, | 803 I St., N.W. |
| John C. Schofield, Georgia, A. B., Middlebury College, 1884. | 1447 Corcoran St., N.W. |
| Charles F. Senser, Virginia, | 1415 Howard Ave. |
| C. L. Shaver, West Virginia, | Tremont House. |
| Elmer D. Sherburne, New Hampshire, A. B., Dartmouth College, 1890. | 405 Florida Ave., N.W. |
| John Bottrell Sleman, Jr., District of Columbia, | 1222 F St., N.W. |
| Addison T. Smith, Ohio, | 1412 6th St., N.W. |
| F. M. Smith, West Virginia, | Tremont House. |
| John D. Smoot, District of Columbia, | 930 F St., N.W. |
| H. P. Stephenson, Virginia, A. B., Lehigh University, 1891. | 1619 17th St., N.W. |
| Richmond Stone, New York, A. B., Harvard University, 1893. | 1226 17th St., N.W. |
| Clifford Metzger Stoy, Virginia, | 517 2d St., N.W. |
| Benjamin R. Stuart, Jr., South Carolina, | 1226 15th St., N.W. |
| Frederick George Stutz, District of Columbia, | 1507 Rhode Island Ave., N.W. |
| W. L. Symons, Ohio, | 1451 N St., N.W. |
| Morven Thompson, District of Columbia, | 1756 Corcoran St., N.W. |
| Harry Stanley Tullis, Montana, | 1221 I St., N.W. |
| Richard K. Tyler, District of Columbia, B. S., Dartmouth College, 1890. | 1307 F St., N.W. |
| Guy Underwood, Ohio, | 215 1st St., S. E. |
| John G. Urquhart, Virginia, | 1657 31st St., N.W. |
| Harry Weston Van Dyke, New York, | 1301 K St., N.W. |
| H. G. Van Everin, New York, M. E., Cornell University, 1891. | 2136 G St., N.W. |
| Forrest F. Vrooman, Virginia, | 1613 S St., N.W. |
| George Alfred Warren, Illinois, | 515 3d St., N.W. |
| William Warren Werntz, Massachusetts, | 913 I St., N.W. |
| Horace Hampton Westcott, Penn., | 1414 20th St., N.W. |
| Charles B. Wike, North Carolina, | 1300 Pennsylvania Ave., N.W. |
| E. W. Williams, New York, | 633 Q St., N.W. |
| David Edgar Wilson, District of Columbia, A. B., Western Maryland College, 1893. | 1113 East Capitol St. |

| Name. | Address. |
|---|---|
| Walter A. Wilson, Ohio, | 234 N St., N.W. |
| Harvey T. Winfield, District of Columbia, | 1440 Chapin St., N.W. |
| Robert H. Young, District of Columbia, | 1517 Howard Ave. |

Seniors . . . . 119

**Juniors.**

| Name. | Residence. |
|---|---|
| Allen Diehl Albert, Jr., Pennsylvania, | 322 T St., N.W. |
| Robert L. Ames, Michigan, B. S., University of Michigan, 1894. | Interior Department. |
| Orville E. Bailey, District of Columbia, | 914 M St., N.W. |
| George Wilson Baker, District of Columbia, | 1745 Q St., N.W. |
| Marcus Baker, District of Columbia, | 1905 16th St., N.W. |
| Rufus H. Baker, New Hampshire, A. B., Dartmouth College, 1893. | 1432 S St., N.W. |
| Mottrom Corbin Ball, Virginia, | 1302 30th St., N.W. |
| F. M. Barnes, Minnesota, | 1225 O St., N.W. |
| William O. Beall, District of Columbia, | 1626 15th St., N.W. |
| Grove Sidney Beardsley, New York, | 1704 Conn. Ave., N.W. |
| Edward Bedloe, Pennsylvania, | 1425 New York Ave., N.W. |
| Claude N. Bennett, Georgia, | Interior Department. |
| A. R. Benson, District of Columbia, B. S., University of Michigan. | 1811 3d St., N. E. |
| Don P. Blaine, New York, | 163 F St., N. E. |
| W. W. Blake, Tennessee, | 1119 6th St., N.W. |
| F. C. Bliss, Pennsylvania, | 329 T St., N.W. |
| Eugene J. Bogen, Mississippi, | Treasury Department. |
| W. W. Boyer, New York, | 133 C St., N. E. |
| Howard P. Boyle, District of Columbia, | 1719 Q St., N.W. |
| William N. Brown, Virginia, C. E., Virginia Military Institute, 1893. | Alexandria, Va. |
| Frank S. Browne, Georgia, | 144 R St., N. E. |
| H. Le Roy Browning, Illinois, | 4 8th St., S. E. |
| William G. Brownlow, Tennessee, | 1411 Corcoran St., N.W. |
| Henry Harding Burroughs, New York, M. E., Cornell University, 1894. | 515 7th St., S. E. |
| Sherman E. Burroughs, New Hampshire, A. B., Dartmouth College, 1894. | 1432 S St., N.W. |

| Name. | Address. |
|---|---|
| Charles B. Calvert, Maryland, | 1750 Corcoran St., N.W. |
| L. S. Cannon, North Carolina, A. B., Wake Forest College, N. C. | 1109 13th St., N.W. |
| Frank L. Churchill, Wisconsin, | 715 3d St., N. E. |
| Harry L. Clapp, Massachusetts, S. B., Massachusetts Institute of Technology, 1893. | 1445 Corcoran St., N.W. |
| Francis W. H. Clay, Kentucky, C. E., Cornell University, 1893. | 1706 F St., N.W. |
| William H. Coleman, Pennsylvania, | 720 21st St., N.W. |
| H. Karl Cooke, District of Columbia, | 1 Cooke Place., N.W. |
| J. Taylor Cornin, District of Columbia, | 439 G St., N.W. |
| B. B. Cushman, District of Columbia, | 1208 K St., N.W. |
| Alfred S. Dalton, North Carolina, | 912 Mass. Ave., N.W. |
| Frank Parker Davis, Massachusetts, | Loan and Trust Building. |
| Guy E. Davis, District of Columbia, | 3006 P St., N.W. |
| Joseph A. Dempf, District of Columbia, | 311 F St., N. E. |
| R. Oldner Deyer, Virginia, | McGill Building. |
| Theodore T. Dorman, New Jersey, S. B., Massachusetts Institute of Technology, 1893. | 951 Massachusetts Ave., N.W. |
| Bertram M. Doyle, Kentucky, | 722 12th St., N.W. |
| John Joy Edson, Jr., District of Columbia, | 1324 16th St., N.W. |
| William Annie Ellis, Mississippi, | 220 Carroll Place, S. E. |
| Frank D. Emery, District of Columbia, | 1609 13th St., N.W. |
| T. F. Epes, Virginia, | Weather Bureau. |
| John W. Ewing, Illinois, | 106 5th St., N. E. |
| Joseph R. Fague, District of Columbia, | 1002 6th St., N.W. |
| James M. Fisher, Virginia, | 1212 9th St., N.W. |
| Charles F. Fitz, Massachusetts, | 1821 I St., N.W. |
| Arthur I. Flagg, Virginia, | West End, Va. |
| Justin E. Flannery, Ohio, | 1207 5th St., N.W. |
| J. M. Fleming, North Carolina, | 901 M St., N.W. |
| Arthur L. Flint, Ohio, | 238 Massachusetts Ave., N. E. |
| M. C. Foote, District of Columbia, | 1530 O St., N.W. |
| William E. Fort, Georgia, | 1104 12th St., N.W. |
| Samuel E. Foute, Indiana, B. M. E., Purdue University. | 700 20th St., N.W. |

| Name. | Address. |
|---|---|
| Arthur Garner, District of Columbia, | 303 Massachusetts Ave., N. E. |
| Rodney Gary, Texas, | 1312 15th St., N.W. |
| Frank R. Givens, New Jersey, | 119 F St., N. E. |
| Walter H. Gray, Maryland, | 220 11th St., S.W. |
| Isaac Baker Greene, Pennsylvania, | 1212 9th St., N.W. |
| Thomas N. Greer, Tennessee, | Weather Bureau. |
| Edmund P. Halley, Jr., Kentucky, | 716 12th St., N.W. |
| B. A., Kentucky University. | |
| F. R. Hanna, Kansas, | 700 20th St., N.W. |
| Charles B. Harding, Pennsylvania, | 55 New York Ave., N.W. |
| Ashby Harris, New Jersey, | 725 12th St., N.W. |
| Thomas B. Harrison, Kentucky, | 722 12th St., N.W. |
| Grandby Hillyer, Georgia, | 1202 S St., N.W. |
| Charles A. Hines, District of Columbia, | Tennallytown, D. C. |
| Joseph Morehead Hobson, Alabama, | The Cairo. |
| Frank Samuel Holliger, Missouri, | 1226 Massachusetts Ave., N.W. |
| Jason C. Hundley, Virginia, | 1215 I St., N.W. |
| F. D. Hyde, Nebraska, | |
| Arthur Johns, District of Columbia, | Engineer's Office, D. C. |
| Fred. Johnson, New York, | Treasury Department. |
| H. V. Kell, Georgia, | 420 6th St., N.W. |
| Herbert L. Kellen, Massachusetts, | 1308 L St., N.W. |
| John H. Kennedy, Tennessee, | 113 Maryland Ave., N. E. |
| Bradford Knapp, Louisiana, | 807 H St., N.W. |
| B. S., Vanderbilt University, 1892. | |
| Colton H. Lee, District of Columbia, | 1311 14th St., N.W. |
| W. W. Long, North Carolina, | 1710 G St., N.W. |
| Ellis Lord, New York, | 2024 G St., N.W. |
| Lucas Powell Loving, Virginia, | 723 18th St., N.W. |
| John J. McGrain, Indiana, | 508 Florida Ave., N.W. |
| Fred. W. McLean, North Dakota, | Senate Post Office. |
| James Madison, Virginia, | 1201 19th St., N.W. |
| Charles Bott Mann, Mississippi, | 911 M St., N.W. |
| Henry M. Marshall, Virginia, | 2009 I St., N.W. |
| Thomas R. Martin, District of Columbia, | 920 20th St., N.W. |
| John A. Massie, District of Columbia, | 1001 G St., N.W. |
| Leonard J. Mather, District of Columbia, | 303 D St., N.W. |
| Guy Stanley Meloy, Maryland, | 118 C St., N.W. |
| William Messervy, Massachusetts, | 1832 9th St., N.W. |
| Claude E. Miller, District of Columbia, | 1339 15th St., N.W. |

| Name. | Address. |
|---|---|
| Edward P. Mills, District of Columbia, | 1012 N. Hampshire Ave., N.W. |
| W. Roy Mitchell, Kansas, | 920 N St., N.W. |
| Charles P. Montgomery, New York. | 528 3d St., N.W. |
| Frank Horace Moore, Kansas, | 1839 Larch St. |
| Noble Moore, Tennessee, | 1022 12th St., N.W. |
| Clement D. Moss, Louisiana, | 807 H St., N.W. |
| Edward Mower, Connecticut, | 1509 10th St., N.W. |
| Frederick L. Neville, New York, | General Land Office. |
| Charles A. Oswell, New York, | 1211 K St., N.W. |
| Wilber A. Owen, Michigan, | 20 Grant Place, N.W. |
| Charles H. Parker, Virginia, | Falls Church, Va. |
| Thornton Jenkins Parker, Rhode Island, | 1731 H St., N.W. |
| Orin Patterson, Missouri, | 205 G St., N.W. |
| Bennett Peck, District of Columbia, | 3263 O St., N.W. |
| George P. Pell, North Carolina, | 309 Massachusetts Ave., N. E. |
| Francis Mohun Phelps, Connecticut, | 1206 S St., N.W. |
| James Franklin Philp, New York, | 436 H St., N.W. |
| Aurelian Howard Pinney, Iowa, | 417 Massachusetts Ave., N.W. |
| Jesse W. Proctor, Illinois, | 1235 B St., S. E. |
| James M. Rauch, District of Columbia, | 68 D St., N. E. |
| J. Castle Ridgway, Illinois, | 1632 17th St., N.W. |
| Frederick D. Riggles, Virginia, | 2121 G St., N.W. |
| T. M. Robertson, North Carolina, | 111 C St., N. E. |
| Henry J. Robinson, New York, | 215 E St., N.W. |
| Harry Norman Robison, Pennsylvania, | 1820 13th St., N.W. |
| S. West Russell, Maryland, | 1122 16th St., N.W. |
| J. Martin Scranage, West Virginia, | Tremont House. |
| Arthur B. Seibold, District of Columbia, | 110 Maryland Ave., N. E. |
| J. B. Shallenberger, Pennsylvania, | 1406 G St., N.W. |
| Edgar J. Simmons, Mississippi, B. S., Mississippi College. | 707 6th St., N.W. |
| Maurice Sioussa, District of Columbia, | 1736 Q St., N.W. |
| Augustin R. Smith, Pennsylvania, | 919 McPherson Square, N. W. |
| Charles T. Smith, Massachusetts, | 1426 N St., N.W. |
| Fred. A. Smith, Georgia, | 1104 12th St., N.W. |
| Laban Sparks, Maryland, | 815 C St., S.W. |
| Henry C. Spencer, District of Columbia, | Spencerian College. |
| P. R. Spencer, District of Columbia, | Spencerian College. |
| Clinton M. Stahl, New York, | Government Printing Office. |

| Name. | Address. |
|---|---|
| H. E. Stauffer, Delaware, | 3238 N St., N.W. |
| Lewis Green Stevenson, Illinois, | Normandie. |
| N. B. Stewart, Georgia, | 1211 K St., N.W. |
| A. B., University of Georgia, 1893. | |
| E. Hume Talbert, District of Columbia, | 220 6th St., S. E. |
| James A. Tanner, District of Columbia, | 3208 U St., N.W. |
| Blain W. Taylor, West Virginia, | 246 9th St. N. E. |
| William H. Taylor, Ohio, | |
| Robert W. Test, Illinois, | 223 E St., N.W. |
| Clarke K. Tilton, District of Columbia, | 806 I St., N.W. |
| John S. Tucker, New York, | 1125 13th St., N.W. |
| H. W. Van Senden, Kentucky, | Treasury Department. |
| John F. Victory, New York, | 416 7th St., S. E. |
| W. P. Walker, District of Columbia, | 933 23d St., N.W. |
| John L. Weaver, District of Columbia, | 412 Maple Ave. |
| James A. Wetmore, New York, | 310 9th St., N. E. |
| William James Whitaker, Pennsylvania, | 720 21st St., N.W. |
| George Dudley Whitney, New Jersey, | 1025 Vermont Ave. |
| George M. Whitney, Virginia, | 1517 Columbia St. |
| Robert E. Wiley, Arkansas, | 1412 6th St., N.W. |
| Charles F. Wilson, District of Columbia, | 2004 G St., N.W. |
| C. A. Wood, North Carolina, | 111 C St., N. E. |
| William G. Worrell, Virginia, | 933 M St., N.W. |
| W. L. H. Wright, Texas, | Treasury Department. |
| Joshua S. Zimmerman, West Virginia, | 915 I St., N.W. |
| A. B., Randolph-Macon College. | |

Juniors, . . . . . 156

**Recapitulation.**

| | |
|---|---|
| Graduates, . . . . . | 57 |
| Seniors, . . . . . | 119 |
| Juniors, . . . . . | 156 |
| | 332 |

# THE CORCORAN SCIENTIFIC SCHOOL.

**The Faculty.**

THE REV. SAMUEL H. GREENE, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

JAMES H. GORE, PH. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics and Secretary of the Faculty.

LEE D. LODGE, PH. D.,
Professor of Philosophy and French and Dean of Summer School.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

FRANK H. KNOWLTON, PH. D.,
Professor of Botany.

THEODORE N. GILL, PH. D.,
Professor of Zoölogy.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, PH. D.,
Professor of Meteorology.

HERMANN SCHÖNFELD, PH. D.,
Professor of German.

HARRY KING, LL. B.,
Professor of Drawing.

EXUM PERCIVAL LEWIS, B. S.,
Professor of Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology and Mineralogy.

ADOLPHUS W. GREELY, BRIG. GEN. U. S. A.,
Professor of Geography.

JOSIAH PIERCE, JR., M. A.,
Professor of Drawing and Applied Geometry.

H. CARRINGTON BOLTON, PH. D.,
Lecturer on History of Chemistry.

ANDREW F. CRAVEN, PH. D.,
Professor of Economics.

LOUIS AMATEIS,
Professor of Fine Arts as Applied to Architecture.

EDWARD FARQUHAR, PH. D.,
Assistant Professor of English.

CHARLES E. BARRY,
Professor of Architecture.

THOMAS M. CHATARD, PH. D.,
Lecturer on Chemical Engineering.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

FRANK L. AVERILL, C. E.,
Instructor in Engineering Field-work.

FELIX FREYHOLD, C. E.,
Assistant in Iron and Steel Construction.

HENRY R. PYNE, A. M.,
Instructor in Latin and Greek.

MARATHON M. RAMSEY, B. S.,
Instructor in Romance Languages.

HERBERT L. RICE, M. S.,
Instructor in Astronomy.

ERNEST L. THURSTON, C. E.,
Assistant in Drawing.

GEORGE V. CHANDLER, B. S.,
Assistant in Mineralogy.

J. SCOTT JOHNSON, A. M.,
Assistant in Applied Mathematics.

EDWIN H. FOWLER, B. S.,
Assistant in Topographic Drawing.

PETER FIREMAN, PH. D.,
Assistant in Quantitative Analysis.

EDWARD A. MUIR,
Assistant in Machine Drawing.

J. EMIL BLOMÉN, PH. D.,
Instructor in Physics.

JOSEPH S. MILLS, A. M.,
Assistant in Qualitative Analysis.

EMIL H. MEYER,
Assistant in Free-hand Drawing.

POWHATAN W. ROBERTSON,
Assistant in Accounting.

WILLIAM P. HAY, A. M.,
Assistant in Zoölogy.

WORTHINGTON C. FORD,
Lecturer on Statistics.

GLENN BROWN,
Lecturer on Sanitary Engineering.

W. C. LANGDON, JR., A. M.,
Instructor in History and Director of University Extension.

HENRY SIMPSON,
Associate Professor of Architecture.

JAMES H. ECKELS, LL.B.,
Lecturer on Finance.

ELMER S. FARWELL, C. E.,
Instructor in Thermo-dynamics and the Steam Engine.

T. W. STANTON, A. M.,
Instructor in Paleontology and Stratigraphical Geology.

H. GRANT HODGKINS, A. B.,
Assistant in Mathematics.

RAYMOND M. ALDEN, A. B.,
Assistant in English.

CHARLES E. McNABB, LL. M.,
Assistant in Business Law.

CLEVELAND ABBE, JR., A. B.,
Instructor in Physiography.

PERLY E. STEVENS,
Assistant in Engineering.

BRAINARD H. WARNER, LL. B.,
Lecturer on Banking.

ARTHUR MACDONALD, M. D.,
Lecturer on Social Pathology.

BEVERLEY T. SENER, LL. M.,
Registrar.

**Standing Committees of the Faculty.**

*Committee on Advanced Standing.*

Professors MUNROE, HODGKINS, and LODGE.

*Committee on Registration of Students.*

Professors MUNROE and HODGKINS.

*Committee on Library.*

Professors FAVA, FARQUHAR, and GORE.

*Committee on Examination Schedule.*

Professors FAVA, LODGE, and HODGKINS.

*Committee on Catalogue.*

Professors MUNROE and HODGKINS.

---

The School of Science established by the Trustees and Overseers of the Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin on the first of October and are held in the University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take Special Courses in any of the Departments.

WORTHINGTON C. FORD,
Lecturer on Statistics.

GLENN BROWN,
Lecturer on Sanitary Engineering.

W. C. LANGDON, JR., A. M.,
Instructor in History and Director of University Extension.

HENRY SIMPSON,
Associate Professor of Architecture.

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CHARLES E. McNABB, LL. M.,
Assistant in Business Law.

CLEVELAND ABBE, JR., A. B.,
Instructor in Physiography.

PERLY E. STEVENS,
Assistant in Engineering.

BRAINARD H. WARNER, LL. B.,
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Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take Special Courses in any of the Departments.

## COURSES OF STUDY LEADING TO THE DEGREE OF B. S.

FIRST YEAR.*

(Common to all Courses.)

Applied Mathematics, 1.
Chemistry, 1, 6.†
Fine Arts, 1.
Drawing, 1.
English, 1, 2.
French, 1.
Mathematics, 1, 2.

### COURSE I—GENERAL.

SECOND YEAR.

Chemistry, 10, 6.
Engineering, 1.
English, 3.
French, 2.
Applied Mathematics, 5.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Philosophy, 3.
Physics, 1.

THIRD YEAR.

Chemistry, 6.
Economics, 5.
English, 4, 5, 6, 7, 8.
French, 3.
Geology, 1 A.
Mineralogy, 2 A.
German, 2.
Mathematics, 5.
Physics, 10.
Philosophy, 1.

FOURTH YEAR.

The student will pursue a course of study elected by him and which is accepted by the Faculty. Students must submit their proposed Course in writing to the Dean before May 30 of the third year of their Course.

### COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.
Drawing, 2, 3.
Engineering, 1, 15 (1st term), and Field-work.
Fine Arts, 2.
German, 1.
Mathematics, 3, 4.
Mechanical Engineering, 4, 5 (2d term).
Mineralogy, 1 (1st term).
Physics, 1.

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*Students in Course XII will take Course 2 in Fine Arts in addition to the above.

†The numbers following the subjects for study refer to the special topics in the various Departments of the Corcoran Scientific School.

THIRD YEAR.

Applied Mathematics, 6, 9, and Constructive Exercises.
Astronomy, 2.
Finance, 1.
Fine Arts, 3.
Geology, 1 A.
German, 2.
Engineering, 3, 4, 5, 13, 14, Constructive Exercises and Field-work.
Mathematics, 5.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.
Finance, 2.
Engineering, 7, 9, 10, 13, 14.
Chemistry, 6.
Geodesy, 1 (1 term).
Mathematics, 6, 7.
Physics, 10, 13.

## COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10, 6.
Engineering, 2.
German, 1.
Mathematics, 3, 4.
Mechanical Engineering, 3, 5.
Mineralogy, 1 (1st term).
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9.
Geology, 1 A.
Physics, 2, 3, 10, 13.
Mathematics, 5.
Mechanical Engineering, 6, 7.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.
Engineering, 12, 18.
Mathematics, 6, 7.
Physics, 4, 5, 6, 11.

## COURSE IV—IN MECHANICAL ENGINEERING.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10, 6.
Engineering, 2.
German, 1.
Mathematics, 3, 4.
Mechanical Engineering, 3, 5.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9.
Geology, 1 A.
Physics, 2, 3, 6, 7, 12.
Mathematics, 5.
Mechanical Engineering, 6, 7.

FOURTH YEAR.

Applied Mathematics, 7, 8, 10.
Engineering, 12, 18.
Mathematics, 6, 7.
Physics, 8, 9, 11, 14.

## COURSE V—IN CHEMISTRY (A).

SECOND YEAR.

Chemistry, 2, 6.
Geology, 1 A.
German, 1.
Physics, 1.
Mineralogy, 1.

THIRD YEAR.

Chemistry, 3, 6.
German, 2.
Geology, 2.

FOURTH YEAR.

Chemistry, 4, 5, 6, 7.
German, 3.

## COURSE VI—IN CHEMISTRY (B).

SECOND YEAR.

Chemistry, 2, 6.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Chemistry, 3, 6.
German, 2.
Mathematics, 5.
Physics, 2, 3.

FOURTH YEAR.

Chemistry, 4, 6, 7.
German, 3.
Mathematics, 6.
Physics, 6.

## COURSE VII—IN MATHEMATICS.

SECOND YEAR.

Applied Mathematics, 2, 5.
Civil Engineering, 1, 2.
Drawing, 2.
French, 2.
German, 1.
Mathematics, 3, 4.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6, 9.
Astronomy, 1.
French, 3.
German, 2.
Mathematics, 5, 8, 9, 10.
Physics, 10.

FOURTH YEAR.

Astronomy, 2, 3.
Civil Engineering, 3.
German, 3.
Mathematics, 6, 7, 11, 12.
Philosophy, 1, 3.
Physics, 2, 4.

## COURSE VIII—IN METEOROLOGY.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10, 6.
Engineering, 1.
Geology, 1 A.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Applied Mathematics, 6.
Astronomy, 1.
Geology, 2 A.
German, 2.
Mathematics, 5.
Meteorology, 1.
Physics, 5, 6, 10.

FOURTH YEAR.

Applied Mathematics, 8.
Astronomy, 2.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2.
Physics, 11.

## COURSE IX—IN GEOGRAPHY.

SECOND YEAR.

Applied Mathematics, 2, 5.
Chemistry, 10.
Drawing, 2.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Geography, 1.
Physics, 1.

THIRD YEAR.

Astronomy, 1.
Engineering, 3, 4, 6.
German, 2.
Geography, 2.
Geology, 1 A.
Mathematics, 5.
Modelling.
Physics, 2, 5.

FOURTH YEAR.

Applied Mathematics, 7.
Astronomy, 2.
Engineering, 10.
Geodesy, 1.
Mathematics, 6.
Meteorology, 2.
Plate Engraving.
Methods of Reproduction.
Telegraphy and Signaling.

## COURSE X—IN GEOLOGY AND MINERALOGY (A).

SECOND YEAR.

Botany, 1.
Chemistry, 10.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Botany, 2.
Chemistry, 2.
Engineering, 3.
Geology, 1.
Mineralogy, 2 A.
Physics, 10.
Zoölogy, 1.

FOURTH YEAR.

Botany, 3.
Chemistry, 3.
Engineering, 6.
Geology, 2 A.
Meteorology, 2.
Zoölogy, 2.

## COURSE XI—IN GEOLOGY AND MINERALOGY (B).

SECOND YEAR.

Botany, 1.
Chemistry, 10.
Drawing, 2.
Engineering, 1.
German, 1.
Mathematics, 3, 4.
Mineralogy, 1.
Physics, 1.

THIRD YEAR.

Botany, 2.
Chemistry, 2.
Engineering, 3.
Geology, 1 B.
Geography, 1.
German, 2.
Mineralogy, 2 B.
Physics, 10.
Zoölogy, 1.

FOURTH YEAR.

Botany, 3.
Chemistry, 4, 5.
Engineering, 6.
German, 3.
Geology, 2 B.
Meteorology, 2.
Zoölogy, 2.

## COURSE XII—IN ARCHITECTURE.

SECOND YEAR.

Applied Mathematics, 2, 5.
Architecture, 1, 4.
Engineering, 15, 9, 2.
Fine Arts, 3.
French, 2.
Mathematics, 3, 4.
Mechanical Engineering, 4, 5.
Mineralogy, 1 (1st term).
Physics, 1.

THIRD YEAR.

Applied Mathematics, 3, 4, 9, 11.
Architecture, 2, 5, 7, 10, and 8 or 9.
Engineering, 16, 17.
Finance, 1.
Fine Arts, 4.
French, 3, or Italian.
Geology, 1 A.

FOURTH YEAR.

Architecture, 3, 6, 8, 9, 10.
Finance, 2.

## COURSE XIII—IN FINANCE AND ECONOMICS.

SECOND YEAR.

Finance, 1, 7.
French, 2.
Geography, 1.
German, 1.
Philosophy, 3.
Physics, 1.
Spanish, 1.

THIRD YEAR.

English, 7, 8.
Finance, 2, 3, 5, 6.
French, 3.
Geography, 2.
German, 1.
Philosophy, 1.
Spanish, 2.

FOURTH YEAR.

Astronomy, 1.
Botany, 1.
Chemistry, 10.
Finance, 7.
German, 3.
Italian, 1.
Mineralogy, 1.
Philosophy, 2.

## COURSE XIV—IN LANGUAGE AND LITERATURE.

SECOND YEAR.

Finance, 7.
Mathematics, 3.
Botany, 1, or Mineralogy, 1.
Physics, 1;

and any five languages which include English, French, and German may be taken as the subjects in which the student is to do his work for the degree of B. S. In English the year is spent in the study of Logic and the principles of Criticism. Instruction in other languages will include the following features:

(*a.*) Sight translation from the foreign language into English.
(*b.*) Thorough study of grammatical forms.
(*c.*) Critical study of syntax; historic explanation of idioms.
(*d.*) Copious exercises in composition.
(*e.*) Exercises in conversation and dictation.

THIRD YEAR.

Astronomy, 1. Geology, 1.
Geography, 2. Philosophy, 1.
Zoölogy, 1;

and work in English to consist of elaborate studies in the history of the development of the English language. In other languages the instruction will embrace:

(*a.*) An extended course of reading so selected as to lift into bold relief the development of the great schools of literature which have arisen in each country whose language is studied.

(*b.*) Exercises in composition, conversation, and dictation.

(*c.*) The history of the language; studies in comparative philology.

(*d.*) The history of the people as written by themselves.

FOURTH YEAR.

Chemistry, 10, or Physics, 10. Philosophy, 2, 4.

The course in English for the year will be a critical study of the history of English literature in its great masterpieces; inductive Rhetoric; and essays, historical, literary, and critical. The instruction in other languages will include:

(*a.*) Reading; writing of essays in the language; conversation.

(*b.*) The study of one of the most important epochs of the literature.

(*c.*) Students are required to write a thesis embodying the results of their study of the works of some great author.

(*d.*) Studies in comparative literature.

## SCHEDULE OF LECTURES AND RECITATIONS, 1894–'95.

| HOURS. P. M. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 4.30 to 5.30 | Advanced English.<br>Building Construction and Tall Buildings. | | Advanced English.<br>Perspective and Shadows. | Mechanics of Construction. | Advanced English.<br>Building Construction and Tall Buildings. | Spanish Conversation. |
| 6 to 7 | Architecture.<br>Botany.<br>Calculus.<br>Italian, I.<br>Latin, II.<br>Mineralogy.<br>Machine Construction. | Algebra.<br>Astronomy.<br>Engineering Topics.<br>Ethics.<br>Modern History.<br>Spanish, I.<br>Topographical Drawing. | Analytical Mechanics.<br>Ancient History.<br>Architectural Drawing.<br>German, I.<br>House Sanitation.<br>Latin, I.<br>Psychology, I.<br>Spanish, I. | American Literature.<br>Analytic Geometry.<br>Chemistry, I.<br>Ethics.<br>Graphic Statics.<br>Latin, IV.<br>Trigonometry. | Analytic Geometry.<br>French, I.<br>Geology.<br>Greek.<br>Iron and Steel Construction.<br>Trigonometry. | Architectural Drawing.<br>Descriptive Geometry.<br>German, I.<br>Latin, I. |
| 7 to 8 | Analytic Geometry.<br>Botany.<br>Business Law.<br>Chemistry, I.<br>Geology.<br>Greek.<br>Masonry Construction.<br>Trigonometry. | Accounting.<br>Differential Equations.<br>Electricity.<br>Engineering Topics.<br>English Literature.<br>French, I.<br>Greek.<br>Italian, I.<br>Topographical Drawing.<br>Zoölogy. | Analytical Mechanics.<br>Ancient History.<br>Chemistry, I.<br>German, II.<br>Latin, II.<br>Psychology, II.<br>Spanish, II. | Accounting.<br>Anglo-Saxon.<br>Business Law.<br>Calculus.<br>Greek.<br>Mechanical Drawing.<br>Physics.<br>Psychology, II. | Descriptive Geometry.<br>Geometry.<br>Mineralogy.<br>Psychology, I.<br>Spanish, I. | Applied Geometry.<br>German, II.<br>Mechanical Drawing. |

| Hours. P M. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 8 to 9 | Astronomy.<br>Civics and Politics.<br>Geometry.<br>Latin, IV.<br>Physics.<br>Strength of Materials. | Determinants.<br>Engineering Topics.<br>French, III.<br>Geography.<br>Least Squares.<br>Political Economy.<br>Quaternions.<br>Rhetoric. | Elementary Mechanics.<br>English Language.<br>French, II.<br>German, III.<br>Spanish Conversation. | Astronomy.<br>Civics and Politics.<br>Differential Equations.<br>French, III.<br>Geography.<br>Machine Drawing.<br>Rhetoric.<br>Surveying. | Algebra.<br>Electricity.<br>French, II.<br>Machine Construction.<br>Political Economy.<br>Spanish, II. | Free-hand Drawing.<br>German, III.<br>Machine Drawing.<br>Topographical Surveying. |
| 9 to 10 | Algebra.<br>Economic Development.<br>Strength of Materials. | Engineering Topics.<br>Finance. | Elementary Mechanics.<br>Logic. | Determinants.<br>Economic Development.<br>Least Squares.<br>Machine Drawing.<br>Quaternions. | Finance.<br>Logic.<br>Railroad Engineering. | Architectural Drawing.<br>Machine Drawing. |

"Chemistry, 10," a laboratory course, Tuesday, from 5 to 10 p. m.
The Laboratories (Botanical, Chemical, Geological, Mineralogical, and Physical) and Drawing Rooms are open every evening.
The full course in Assaying occupies three evenings per week for three months.

## DEPARTMENTS OF INSTRUCTION.

### Anthropology.

DR. MASON, Lecturer.

(See under head of "Graduate School.")

### Applied Mathematics.

(See Department of Engineering.)

### Architecture.

PROFESSOR BARRY, Head of Department.
MR. SIMPSON, Associate Professor of Architecture.
MR. BROWN, Lecturer on Sanitary Engineering.

1. History of Architecture, I, one hour.*
2. History of Architecture, II, one hour.
3. History of Architecture, III, one hour.
4. Original Planning and Design (second year).
5. Original Planning and Design (third year).
6. Original Planning and Design (fourth year).
7. Work in Architects' offices.
8. Heating and Ventilation, one hour, one term.
9. Sanitary Engineering for Architects, one hour, one term.
10. Inspection of buildings erected or in course of erection.

### Astronomy.

PROFESSOR WINLOCK, Head of Department.
MR. RICE, Instructor.

1. General Descriptive Astronomy. Three hours. Young's General Astronomy, with occasional Lectures.

Arrangements have been made for occasional visits to the New U. S. Naval Observatory, so that students may be familiarized with the use of large telescopes.

2. Practical Astronomy, one hour.
3. Mathematical and Theoretical Astronomy, two hours.

Theory taught mainly by Lectures, supplemented by the Solution of Problems and Practical Computations.

* Unless otherwise stated, hours per week throughout the year.

## Botany.

PROFESSOR KNOWLTON, Head of Department.

1. Structural and Systematic Botany.

The year will be devoted to general organography and morphology of flowering plants and the higher cryptogams, with brief outline review of the remaining groups. *Field excursions* will be given whenever practicable, and the student will be expected to become familiar with the determination of ordinary flowering plants and vascular cryptogams, and to be able to recognize the principal groups at sight. The student will also be instructed as to the proper manner of collecting and preparing plants for the herbarium and directed to begin the preparation of a local herbarium. Two hours.

Text-books: Gray's Structural Botany; Gray's Manual of Botany of the Northern United States.

Reference books: Ward, Guide to the Flora of Washington and Vicinity; Knowlton, Directions for Collecting Recent and Fossil Plants.

2. Histological and Physiological Botany.

The year will be devoted to lectures and laboratory work in histology and physiology. The cutting of sections, staining and mounting of botanical objects, will be described and illustrated.

*The field excursions* will be continued and the study of the more difficult orders or genera of flowering plants, such as Compositæ, Graminæ, Carex, etc., will be taken up. Attention will also be given to the lower groups, as mosses, algæ, fungi, etc., and the important characters reviewed.

Each student will be required to collect, prepare, and mount an herbarium of one hundred species of local plants, which must be properly identified and classified. Two hours.

Text-books: Goodale's Physiological Botany; Arthur, Barnes, and Coulter, Plant Dissection.

Reference books: Bennett & Murray, Cryptogamic Botany; Lesquereux and James, Manual of Mosses of North America.

3. Paleobotany.

The year will be devoted to a continuation of the previous year's studies, and also to the general subject of Paleobotany. Instruction will be given mainly by lectures and exhibition of specimens, and will be divided into (*a*) Historical, (*b*) Biological, (*c*) Geological. Especial attention will be given to fossil plants as an aid to geology. *The investigation and collection of fossil plants in the vicinity of Washington will be directed.* Two hours.

Reference books: Zittel's Handbuch der Palæontologie; Ward's Sketch of Paleobotany.

## Chemistry.

PROFESSOR MUNROE, Head of Department.
DR. BOLTON, Lecturer on History and Philosophy of Chemistry.
DR. CHATARD, Lecturer on Chemical Engineering.
MR. WHITEHEAD, Assistant in Assaying.
DR. FIREMAN, Assistant in Quantitative Analysis.
MR. MILLS, Assistant in Qualitative Analysis.
——, Assistant in General Chemistry.

1. General Chemistry, being a series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Considerable new apparatus has been purchased for use in the experiments in this course, and a set of valuable charts has been donated by Dr. Bolton. Three hours.

Text-books: Barker's, Remsen's, and Bloxam's Chemistries.

2. Chemical practice and Qualitative Analysis is a laboratory course in the manufacture of chemical substances; the study of their properties and reactions, and of the means employed for their detection and identification. Twelve hours.

Text-books: Clowe's and Fresenius's Qualitative Analysis.

3. Quantitative Analysis is a laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Fifteen hours.

Text-books: Fresenius's and Thorpe's Quantitative Analysis.

4. Technical Analysis and Industrial Processes is a lecture-room and laboratory course in which the elements of chemical engineering will be taught, and special attention will be given to rapid commercial methods of analysis. Twelve hours.

Text-books: Hempel's Gas Analysis, Phillips's Engineering Chemistry, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious Metals, to be carried on by the methods in use by the Government assayers, our laboratory being fitted up on the plan of that of the United States Mint. Through the generosity of the Mechanical Gold Extractor Company a model Crawford mill has been added to our equipment, while we are indebted to Mr. L. G. Johnson for a National Rock and Ore Breaker, to be run by power. Both of these machines may be operated by the Lundell motor pre-

sented by the Interior Conduit and Insulation Company with the dynamo acquired during the last year, so that students in this course may become conversant with the most recent appliances used in the milling of ores. Twelve hours per week for three months.

Text-books: Brown's Manual of Assaying, Rickett's Assaying.

6. History and Philosophy of Chemistry is an illustrated lecture course which is offered gratuitously to all students in the Department and which is given at irregular intervals.

7. Chemistry of the Carbon Compounds is a laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Through the intercession of a generous friend of the University, this Department has recently been presented with upwards of two thousand specimens of organic coloring matters, and additional ones are promised by manufacturers. Twelve hours.

Text-book: Cohen's Practical Organic Chemistry.

8. Modern Methods for Iron and Steel Analysis is a laboratory course for which a large amount of valuable material has been accumulated. We have available for checking the work samples which have been analyzed by some of our most eminent specialists. Fifteen hours.

Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive Substances is a laboratory and field-work course in the preparation and in the study of the properties and methods of analysis of explosive bodies. Fifteen hours.

Text-book: Munroe's Chemistry and Explosives.

10. Experimental Chemistry is a laboratory course for the study of the principles of chemistry and the chemical properties of bodies. Five hours.

Text-book: Cooke's Laboratory Practice.

11. Repertorium in Organic Chemistry.

12. Evolution of the Positive Chemical Theories.

Special attention will be given in all courses to the methods of making notes. Students will be given practice in making abstracts. All will be required to consult the current periodicals and works of reference. Advanced students will be required to prepare a bibliography on some special topic.

## Drawing.

PROFESSOR KING, Head of Department and Lecturer on Mechanical Drawing.
MR. THURSTON, Assistant in Mechanical Drawing.
MR. FOWLER, Assistant in Topographic Drawing.

This Department has been organized for the special instruction and training of superior draftsmen.

The course of instruction, in conjunction with those of the other departments of the School, will include all branches of drawing practiced in the departments of the Government, and will consist in the main of practical demonstrations on the blackboard and on the individual board of the student.

1. Mechanical Drawing.
2. Topographic Drawing.
3. Topographic Drawing as Applied in Architecture.

Each of these courses will occupy two hours per week and will be supplemented by practice.

## Economics.

PROFESSOR CRAVEN, Head of Department.
MR. ROBERTSON, Instructor in Accounting.
MR. McNABB, Instructor in Business Law.
MR. FORD, Instructor in Statistics and Finance.
MR. ECKELS, Lecturer on the National Banking System.
MR. WARNER, Lecturer on Banking.
MR. BRANDENBURG, Lecturer on Commercial Law.
MR. MACDONALD, Lecturer on Social Pathology.

### FINANCE.

1. Advanced Accounting and Auditing.
   1st Term: Private, Individual, and Corporation Business.
   2d Term: Public, Official, and Municipal Business. Two hours a week.
2. Practical Business, Commercial and Banking Law:
   I.—Business Law in general:
   Principles on which it rests.

II.—The Law of Contracts:

*a.* Agency, Partnership, Corporations, Real Estate, Personal Property, etc.

*b.* Commercial Paper.

Rights and Duties of Parties to Bills, Notes, Drafts, and Checks.

III.—Descent and Distribution of Property.

Duties of Executors, Administrators, Trustees, Guardians, etc.

IV.—Business Forms and Practice. Two hours a week.

3. Statistics: The Financial, Commercial, and Social History of the United States since 1860, with special reference to Official Statistics and Graphic Diagrams. Two hours a week.

4. The History and Science of—

I.—Private Finance: Primitive Barter and Exchange; Money, Coinage, Credit, Banking and other business organizations. Given in 1895–'6. Two hours a week.

II.—Public Finance, its development in Ancient, Mediæval, and Modern Nations, with a comparison of the last annual budgets of Germany, France, England, and the United States; to be given in 1896–'7. Two hours a week.

POLITICS AND ADMINISTRATION.

5. I.—Civics: Civil Government in the United States—in township, county, city, and State—following texts of Fiske and Bryce; to be given in 1895–'6. Two hours a week.

II.—Forms and Theories of Government from Ancient Greece and Plato to Modern England and Gladstone, following the text of Bluntschli; to be given in 1896–'7. Two hours a week.

ECONOMIC DEVELOPMENT.

6. I.—History of economic development among prehistoric peoples and among ancient, mediæval, and modern nations, down to 1820; to be given in 1896–'7. Two hours a week.

II.—Modern Industrial and Commercial Development since 1820, the age of steam and electricity, with a study of recent economic discussion and legislation; to be given in 1895–'6. Two hours a week.

POLITICAL ECONOMY.

7. I.—History of the science, following the texts of Roscher, Ingram, and Cossa; to be given in 1895–'6. Two hours a week.

II.—Science of Economics: Economic problems, social questions, charities, punitive legislation and discipline, and abnormalities in man, with proposed reform measures. Text-book: "Abnormal Man," by Dr. MacDonald. To be given in 1896–'7. Two hours a week.

## Engineering and Applied Mathematics.

PROFESSOR FAVA, Head of Department.
MR. AVERILL, Instructor in Engineering Field-work.
MR. FREYHOLD, Assistant in Iron and Steel Construction.
———, Assistant in Topographic Surveying.
———, Assistant in Building Construction.
MR. JOHNSON, Assistant in Applied Mathematics.
MR. STEVENS, Assistant in Engineering.

APPLIED MATHEMATICS.

1. Elements of Applied Geometry, 1 hour.

2. Descriptive Geometry, parts I and II, and Geometry of Position, 2 hours, and Constructive Exercises, 6 hours. Reference: Fava, Warren, Church, Fiedler, Reye, etc.

3. Perspective and Shadows, 1 hour, and Exercises, 2 hours.

4. Stereotomy, 1 hour, and Exercises, 2 hours. Reference: Warren, Adhémar, etc.

5. Elementary Mechanics, 2 hours.

6. Analytical and Applied Mechanics, parts I and II. Reference: Weisbach, Ritter, Rankine, Church, etc.

7. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.

8. Strength of Materials and Theory of Elasticity, parts I and II, 2 hours. Reference: Same as 5 and 6, with Bresse, Merriman, etc.

9. Graphical Statics, parts I and II, 1 hour, and Designing Exercises, 2 hours. Reference: Culmann, W. Ritter, Du Bois, Koechlin, Fava, etc.

10. Mechanics of Machinery, 1 hour. Reference: Rankine, Reuleaux, etc.

11. Mechanics of Construction for Architects, parts I and II, 2 hours.

CIVIL ENGINEERING.

1. Land Surveying and Theory of Instruments, parts I and II, 2 hours, and Practical exercises and Field-work in the Spring.

2. Use of Surveying Instruments, for Architects, Mechanical and Electrical Engineers, 6 meetings in the Field.

3. Topographical Surveying, parts I and II, 2 hours, and Field Practice.

4. Railroad and Highway Engineering and Hydraulic Engineering (Canals, Rivers and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises, 10 hours.

5. Engineering Field-work and Railroad Surveying, 16 meetings.

6. Hydrographic Surveying and Exercises, 1 hour, 1 term.

7. Masonry and Wooden Structures, and Iron and Steel Structures, 1 hour, and Constructive Exercises, 15 hours.

8. Engineering Plant, 1 hour, and Sketching Practice.

9. Materials of Engineering and Metallurgy of Iron and Steel, 1 hour.

10. Water Supply, Sewerage, and Sanitary Engineering, 1 hour.

11. City Engineering, 1 hour, 1 term.

12. Municipal Engineering (Street Railroads and Lighting), for Mechanical and Electrical Engineers, 1 hour.

13. Discussion of Engineering Topics, weekly.

14. Inspection of actual work, fortnightly.

BUILDING CONSTRUCTION.

15. Building Construction, part I, 1 hour, and Constructive Exercises, 15 hours. Reference: Rivingtons, I and II; Burrel, Tutthill.

16. Building Construction, Specifications, and Working Drawings, parts II and III, 2 hours each, and Constructive Exercises, 10 hours.

17. Modern Tall Buildings, and the use of iron in buildings, 1 hour.

18. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises, 3 hours.

Constructive Exercises are carried on largely outside of the regular recitation hours.

## English.

PROFESSOR SHUTE, Head of Department.
DR. FARQUHAR, Assistant Professor of English.
MR. LANGDON, Instructor in History.
MR. ALDEN, Assistant in English.

1. Rhetoric; Genung's Practical. Two hours.
2. English Language; Meiklejohn's. One hour.
3. English Literature; Shaw's Complete Manual, edited by Dr. Smith. One hour.
4. American Literature; Beers's Outline Sketch. One hour.
5. Occasional Dissertations and Debates.
6. American History; Seminas's Work, based on E. Benjamin Andrews's History of the United States. Two hours.
7. Nineteenth Century European History. (One hour, first term.) Lectures and recitation. Text-book: Mackenzie's "Nineteenth Century." Designed to lead toward an understanding of the present political problems.
8. History of France. (One hour, second term; to follow course 7.) Lectures and recitation. Text-book: Duruy's "History of France." Designed to lead to an understanding of the rise of the political situations of the nineteenth century.
9. Ancient History: Egypt, the Mesopotamian Monarchies, Phœnicia, Greece, and Rome. (Two hours in one evening, the course continuing through two years.) Lectures, essays, and recitation. During 1894–'5 the text-books were Rawlinson's "Ancient Egypt," Ragozni's "Chaldæa;" "Assyria," and "Media, Babylon, and Persia."

### ADVANCED ENGLISH.

1. English Etymology.
2. Anglo-Saxon Poetry and Prose.
3. American Literature.
4. Course in General English Literature, by Dr. Farquhar. Lectures and discussions. Essays required. Various periods considered in connection with History and allied branches. Morley's works especially referred to.

### Fine Arts as Applied to Architecture.

PROFESSOR AMATEIS, Head of Department.
MR. MEYER, Assistant in Free-hand Drawing.

1. Free-hand Drawing. One hour.
2. Architectural Drawing. One hour. (The five orders.)
3. Architectural Drawing. One hour. (Application of the five orders.
4. Practice in Composing Monuments, Buildings, etc., of different styles; also lectures on history of ornaments, painting, and sculpture.

Drawing-rooms are at the disposal of the students for practice from 10 a. m. to 10 p. m. daily.

### Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy, 3d edition.

### Geography.

PROFESSOR GREELY, Head of Department.

The course of instruction will include Physical and Economic Geography. The methods followed will embrace compilations, collations, and investigations by the students, and courses of lectures by the professors. The latest text-books will be supplemented and extended to embrace current geographical data, which will be drawn largely from current scientific and statistical publications of the various Governmental bureaus in Washington.

I. Physical Geography: two hours. Especial attention will be given to such parts of the earth as by fauna and flora, by mineral and vegetable deposits, or by other favoring physical conditions, either contribute most largely or promise future advantages to human welfare. Among other subjects will be considered the material influence of climatic conditions and geological formations as factors in the development of natural resources; modifications and extensions of fauna and flora by human or natural agencies; discoveries of mineral, vegetable, and other deposits; transference of centers of population, industries, and commerce; im-

provements of natural and creation of artificial transportation routes, and other similar physical features related to human activities.

II. Economic Geography: two hours. The subjects specially studied will bear on the most important factors connected with the development of agricultural and mineral resources, the extension and evolution of industrial methods, and their inter-dependence on trade and commerce. The growth or decadence of the more important activities of countries or regions, transitions in industrial methods, modifications of commercial relations; the development of improved transportation routes, will be considered in their inter-relations to each other and their effect on the future development of the world in general and the United States in particular.

## Geology and Mineralogy.

PROFESSOR MERRILL, Head of Department.
MR. STANTON, Instructor in Paleontology and Stratigraphical Geology.
MR. CHANDLER, Assistant in Mineralogy.

1. Descriptive Mineralogy. Two hours a week for one term.

2. Determinative Mineralogy. Course A, four hours a week for one term; Course B, six hours a week for one term.

### GEOLOGY.

1. Systematic Geology; Geognosy; Dynamical, Structural, and Stratigraphical Geology. Course A, two hours throughout the year. Text-book: Leconte's Elements of Geology. Course B, three hours throughout the year. Text-book: Dana's Manual of Geology or Geikie's Text-book of Geology.

2. Economic Geology. Course A, two hours throughout the year. Course B, three hours throughout the year. Text-books: Kemp's Ore Deposits of the United States, Merrill's Stones for Building and Decoration.

Mineralogy is taught as introductory to geology. The course is therefore designed with especial reference to minerals as rock constituents or as segregated in ore deposits. So far as possible, the course is practical and includes a study of the ores of the base and precious metals and their associates, and the non-metallic minerals, as the natural salts and the hydrocarbon compounds. Opportunity is given the student to become familiar with blowpipe and qualitative methods of determination, and access is given to a varied collection showing the minerals not merely in their pure and well crystallized forms, but in massive and granular

forms, associated with gangue products and other impurities as occurring in nature.

The Course in Geology consists of lectures, recitations, laboratory and field work. Opportunity is given the students in the laboratory, and, so far as hours will permit, in the field as well, to familiarize themselves with the appearance and general characteristics of rock masses. Text-book recitations are supplemented by lectures on the subjects of rock-formation by sedimentation, metamorphism, and vulcanology, and, so far as time allows, on the methods of study by means of the microscope and thin sections (micropetrology). Under the head of Applied Geology are considered, mainly by lectures and laboratory practice, the subjects comprised under (first) mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (second) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, manganese, antimony, etc.; and (third) the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufacture; abrasive, refractory, and fictile materials, mineral pigments, gems and ornamental stones, building stones, limes and cements, and mineral waters.

### German

PROFESSORS GORE AND SCHÖNFELD.

1. Accurate training in elementary grammar (Otis); pronunciation and translation from English into German; exercise in conversation; readings from Andersen's Bilderbuch ohne Bilder, Storm's Immensee, and some easy German poetry. Two hours.

2. More extended course in German syntax and principal difficulties of the language, idioms, etc.; extensive translations into German (von Jagemann's work, edition of Henry Holt & Co.); Gore's Science Reader, fourth edition; selected stories; Lessing's Minna von Barnhelm. Two hours.

3. Study of idioms, synonyms, and Sander's Hauptschwierigkeiten der deutschen Sprache; special preparation for scientific professional work; Helmholtz on Goethe's work in natural history (edition of Seidensticker); Du Bois-Raymond's Rectoratsreden; critical studies of German classics; lectures on German literature. Two hours.

A special course in German training for advanced students in History and Economics is offered. Schönfeld's German Historical Prose and the standard works of German historians and economists will be read. Number of hours according to agreement with the students.

### Greek.

MR. PYNE, Instructor.

I. White's Beginner's Greek Book; Xenophon's Anabasis.

II. Xenophon's Anabasis; Goodwin's Greek Grammar (revised edition); exercises.

III. Homer's Iliad (Seymour); Goodwin's Greek Grammar (revised edition); exercises; selections from Herodotus.

This elementary work does not count for a degree. Advanced courses will be formed on the application of three or more students.

### Latin.

PROFESSOR MONTAGUE, Head of Department.
MR. PYNE, Instructor in Latin.

1. McCabe's Bingham's Latin Grammar and Cæsar.

2. Cæsar; Cicero; Vergil; Harkness's Latin Grammar; Exercises.

3. Exercises; Latin Grammar continued; Ovid; Livy; the Odes of Horace; and the History of Rome.

4. The Satires and Epistles of Horace; Cicero, De Senectute and De Amicitia; Selected Letters of Pliny; the Germania of Tacitus; Exercises and Latin Grammar.

5. The Agricola and Histories (Book III) of Tacitus; Seneca; Juvenal; Quintilian; Exercises; Latin Grammar; and the History of Roman Literature (Bender).

Courses 1 and 2 are preparatory and do not count for a degree.

### Mathematics.

PROFESSOR HODGKINS, Head of Department.
MR. HODGKINS, Assistant in Mathematics.

(*a*.) Elementary Algebra: two hours. Bowser's College Algebra.

(*b*.) Plane Geometry: two hours. Wells's Plane and Solid Geometry (revised edition).

1. Algebra: three hours Bowser's College Algebra.

2. Geometry: two hours. Wells's Plane and Solid Geometry (revised edition).

3. Trigonometry: three hours, first term. Wells's Plane and Spherical Trigonometry, and Bowser's Treatise on Trigonometry.

4. Analytic Geometry: three hours, second term. Bowser's Analytic Geometry.

5. Calculus: two hours. Bowser's Calculus.

6. Differential Equations: two hours. Johnson's Differential Equations.

7. Least Squares: two hours, ten weeks.

A lecture course, with references to Merriman's Least Squares and Wright's Treatise on the Adjustment of Observations.

8. Determinants: two hours, ten weeks.

Weld's Determinants; Hanus's Determinants.

9. Quaternions: two hours, ten weeks.

Hardy's Quaternions.

10. Analytic Geometry of Three Dimensions: two hours, ten weeks.

11. Theory of Equations: two hours, ten weeks.

12. History of Mathematics.

Courses 8 to 12 are short lecture courses, and, while intended especially for students who wish only the elements of the subjects, serve as preparation for the advanced courses described under the Graduate School. Usually only three of these five courses will be given each year.

### Mechanical Engineering.

MR. MUIR, Assistant in Machine Drawing.

1. Elements of Projection. A drawing course in projections for special students without preparation. Four hours.

2. The Elements of Machines. A course in working drawings for mechanical engineering students or for special students. Four hours.

3. The Elements of Machines. A course in working drawings for mechanical and electrical engineering students. Four hours.

4. The Elements of Machine Drawing. A course for civil engineering and architectural students. One hour.

5. Construction of Machinery, part I (Elements, etc.), one hour, and constructive exercises, six hours.

Reference: Unwin, Reuleaux, etc.

6. Construction of Machinery, part II (Steam Engineering), two hours, and constructive exercises, ten hours.

Reference: Thurston, Whitman, Robinson, Wilson, etc.

7. Construction of Machinery, part III (Hydraulic, Gas, Electric Motors, Machine Tools, etc.), two hours, and constructive exercises, ten hours.

## Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the states of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opinions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continual references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours.

2. Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*. Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours.

3. Logic, Deductive and Inductive. Text-books: Jevons, Fowler; lectures, with frequent references to Whately, Hamilton, Thomson, and Mill. Special care is taken to develop the psychological bases of logical rules. Two hours.

4. Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous exam-

ination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours per week.

## Meteorology.

PROFESSOR ABBE, Head of Department.
MR. ABBE, Instructor in Physiography.

The courses in Meteorology are designed to give a complete review of the present condition of that science, and they are necessarily extended through five years, but the lectures are so arranged that each of the five divisions is complete within itself. Each course presents a detailed view of its branch of the subject, such as may be desired by students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

Students who intend hereafter to present themselves for the degree of Ph. D. in Meteorology must pursue all the following courses.

In addition to the Lectures the instructor will devote one hour a week to a quiz class, in which, by questions and answers, he will seek to remove any difficulties that remain.

For the first two years the complete course of Meteorology is pursued in the Corcoran Scientific School and covers subjects appropriate to the third and fourth years of any of the courses of study that lead to the degree of B. S.

1. OBSERVATIONAL METEOROLOGY.—Personal diary of the weather; general methods of observing without instruments; the rain gauge; the thermometer; the barometer; the nephoscope; the anemometer; hygrometry; actinometry; self-registering apparatus; observations in balloons; observations on mountain stations; meteorological expeditions by land and sea; forms for record; methods of computation of means and normals; graphic methods of presenting results. Two hours.

2. GENERAL CLIMATOLOGY.—Elements of climate; general distribution over the earth of sunshine, temperature, moisture, pressure, wind, clouds; diurnal, annual, and secular periodicities; variability of local climates; empirical relations between the winds and the other elements; the absorption of radiations by the atmosphere; the theory of probabilities as used

in climatology; the computations of the coefficients of the Bessels-Fourier equation; the climatic features of areas of high and low pressure; the relations between ocean currents and the atmosphere; solar and lunar tides; the constituents of the atmosphere and their variations; atmospheric dust; atmospheric moisture; climatic characteristics of oceanic, continental, and littoral regions; sensible temperatures; constitution of the atmosphere as affected by plants, animals, altitudes, and the ocean; influence of snow, swamps, and forests. Two hours.

PHYSIOGRAPHY.

1. General figure of the earth; the distribution of oceanic depths; continental heights; the explanations of their origin; their relation to the trends of the continents; action of the ocean and atmosphere on the land; action of waves and currents; interaction of air and land; rock sculpture and river erosion; general surface features characteristic of special mountain ranges and of special countries; the loess; the bad lands; deltas, deserts, and dunes; river and river terraces and river piracy; buried channels of the Hudson, the Congo, and the Nile; the glaciers and glacial action; moraines, lakes, and eskers; the Great Lakes of North America, ancient Lake Bonneville; the history of the Mississippi, Colorado, Susquehanna, Potomac, Hudson, Illinois, Tennessee, Kentucky Baraboo, Osage, Ohio, and Red rivers; mountains and mountain building; isolated islands, coral islands; volcanoes and laculites; earthquakes, faultings, and their relation to surface orography; study of Alaska and the Aleutian islands.

## Physics and Electrical Engineering.

ASSISTANT PROFESSOR LEWIS, Head of Department.
DR. BLOMÉN, Instructor in Physics.
MR. FARWELL, Instructor in Thermo-dynamics and the Steam-engine.

1. General Physics, two hours. First term: Mechanics, Sound, and Heat. Second term: Electricity, Magnetism, and Light. Lectures, with references to Barker's and Daniels's Physics.

This course will be fully illustrated by experiments; working models of steam-engines, dynamos, and motors will be shown, and practical physical measurements will be made before the class.

2. Elementary Mathematical Theory of Electricity. Two hours per week for one term. Text-book: Thompson's Electricity and Magnetism.

3. Dynamo-electrical Machinery. Two hours per week for one term. Slingo and Brooker's Electrical Engineering will be used as a basis.

4. Advanced Mathematical Theory of Electricity and Alternating Current Machinery. Two hours per week for one term. Lectures based on Gerard, Emtage, Thompson, Jackson, and other authorities.

5. Technical Applications of Electricity. Two hours per week for one term.

6. Thermo-dynamics and the Steam-engine. Two hours per week for one term. Text-book: Holmes's Steam-engine.

7. Heat Generators and Motors. Two hours for one term. The course will be based on Peabody's Thermodynamics, Clausius' Mechanical Theory of Heat, Thurston, and others.

8. Steam-engines and Boilers; Their Design and Construction. Two hours for one term. The course will be based on Unwin, Thurston, and others. Working drawings of design problems.

9. Testing and Management of Boilers and Engines. Two hours for one term. The course will be based on Peabody, Thurston, and others. A number of actual tests will be made of power plants in the vicinity and complete reports made thereon.

10. Physical Laboratory. Three hours. The exercises will include the fundamental measurements and experiments in all branches of Physics. Sabine's Laboratory Manual will be followed.

11. Advanced Laboratory Work. Six hours.

This will include such experiments as those described in the laboratory manuals of Glazebrook & Shaw, Stewart & Gee, and Nichols.

12. Laboratory experiments on heat generation, radiation, conduction, and transfer in general.

13. Inspection of electric plants. In and around Washington are a number of electric-lighting and street-railway plants which afford to students of electrical engineering an excellent opportunity of familiarizing themselves with a large number of types of electric machinery.

14. Critical inspection of power plants, followed by a class discussion of the same.

Occasional meetings will be held at which papers on special subjects will be read by advanced students. All interested will be welcomed at these meetings.

No regular course in shop-work will be offered at present, but a turning lathe and other tools will be provided, and laboratory students who so desire may familiarize themselves with their use by the construction of various pieces of physical apparatus, plans of which have been prepared.

The leading electrical journals are on file in the library.

The following accessions to the physical laboratory have been recently made: Riker dynamo, 1 kilowatt, wound by students; parts of Edison dynamo, ¾ kilowatt, to be wound by students (gift of General Electric Co.); Lundell motor, 1 horse power (gift of Interior Conduit and Insulation Co.); Ayrton and Perry voltameter; Whitney ammeter and voltameter (gift of Whitney Co., Boston); steam-engine, 4 horse power; switches, sockets, and other specialties (gifts of Hammond Cleat and Lona Electrical Cos.); a spectrometer, barometers, reflecting galvanometers, high resistance coils, telephones, and other articles.

## Romance Languages.

PROFESSOR LODGE, Head of Department.
MR. RAMSEY, Instructor in Spanish, Italian, and Portuguese.

### THE FRENCH LANGUAGE.

1. The whole course is especially adapted to scientific students. The class is drilled in French pronunciation, grammar, and composition; exercises in conversation. After some easy French by way of introduction, Histoire d'un Conscrit is read. Van Daell's introduction to the French Language is used. Two hours.

2. Critical Study of syntax; Composition; Dictation. Le Cid, Histoire du Peuple Français, Andromaque, Bug-Jargal, and L'Avare are read. The "Revue Scientifique" is also used instead of a text-book during a part of the year. Two hours.

3. Study of idioms; frequent recitations in French; Composition of French essays; Conversation; Lectures on the development of the French language and literature; selections from De Staël, Hugo, Lamartine, Souvestre, Sandeau, and Scribe. Two hours.

4. A special course in reading, composition, and conversation is offered for students in Course 7 of the Department of Economics. The books read are the standard treatises of the French Political Economists. Periodical economic literature is also read in class. Four hours.

### SPANISH.

1. The class is drilled in pronunciation, in hearing the spoken language, and in writing from dictation. The essentials of the grammar are presented, accompanied by practice in reading and conversation. Two hours.

2. More extended presentation of the grammatical structure of the language. Critical and comparative study of syntax and idioms. His-

tory and development of the Castilian language and literature. Exercises in literary composition. Reading from standard works of modern Spanish and Spanish-American authors. Two hours.

Text-books: Ramsey's Text-book of Modern Spanish; El Lector Americano, No. III, and Spanish texts to be selected as required.

The course has special reference to the rapidly increasing intercourse between the United States and the Spanish-American Republics, and as much attention as possible is given to the customs, usages, resources, and products of those countries.

### ITALIAN.

1. The class is drilled in pronunciation, in hearing the spoken language, and in translating the exercises of the text-book. After the rudiments of the grammar have been mastered the class is led at once to the reading of the easier prose authors, ending with the "Alberto" of De Amicis. Two hours.

2. Further study of the grammatical construction and the principles of syntax and style. History and development of the Tuscan language and literature. Selections from Dante Alighieri, Petrarca, Boccaccio, Boiardo, Ariosto, Tasso, Goldoni, Pellico, and Manzoni. Two hours.

Text-book: Cuore's Italian Grammar.

### PORTUGUESE.

A course covering one year, for students who have completed Spanish 1 and French 1 (or have made equivalent progress in both languages). The phonology, grammatical structure, and syntax are studied with particular reference to their analogies to Spanish and French, combined with exercises in composition and the reading of a text. Two hours.

Text-book: Elwes's Portuguese Grammar.

### HISTORY OF LATIN AMERICA.

*a.* The period of discovery, conquest, and colonization. *b.* The struggles for independence. *c.* The era of progress. *d.* Literature and education in Latin America. One hour.

Portions of various works are assigned for reading outside of the classroom.

### Slavonic Languages.

PROFESSOR SCHÖNFELD, Head of Department.

An introductory course in the *Polish* language and literature is offered, as the first and richest among the Slavonic sisters, to be followed by *Bohemian* in the next scholastic year.

1. A Survey of the Polish Grammar, its phonetic laws, its position among the other languages of the Indo-European family, will be given. Reading of easy prose and poetry.

2. Syntactical Structure of the Language, its history and foreign elements. Extracts from Mickiewicz's and Kraszewski's master works will be read. A collection of Polish national songs and legendary poetry will be studied.

These courses are introductory to a future graduate department in the Slavonic languages. Students will consult Dr. Schönfeld's work on "Higher Education in Poland" (U. S. Bureau of Education); his articles on Slavonic literatures in Johnson's Universal Cyclopædia, and his essays on the "Partition of Poland" and "Polish Elements in German Literature."

### Zoölogy.

PROFESSOR GILL, Head of Department.
MR. HAY, Assistant in Zoölogy.

1. Elements and General Principles of Zoölogy, Packard's. Two hours.
2. Natural History of Invertebrates. Two hours.
3. Natural History of Vertebrates. Two hours.

### Mechanical Laboratory.

During the past year a laboratory has been fitted with benches and tools so as to enable students in Chemistry, Physics, and Engineering to construct apparatus needed in their experimental work and researches.

### University Library.

The Library is open every day until 10 o'clock p. m. for purposes of study and inquiry, and is supplied with the leading reviews and periodicals.

### University Lectures.

Students of the Corcoran Scientific School are admitted without further fee to the University Lectures announced later on in this catalogue; also, when qualified to profit by them, they can secure admission to such lectures, other than the Law lectures, given in the University Hall by applying to the Dean.

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least three weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least two weeks before the date of commencement."

"Examinations for *prizes* in each of the said Departments shall be closed at least three weeks before the end of the scholastic year, and the names of the successful candidates for either shall be reported at least two weeks before the date of commencement."

### Requirements for Degrees.

A definite value or weight is assigned to the subjects taught, the unit being, in general, *one recitation a week for a year*, with a satisfactory examination sustained at the close; but this weight varies for laboratory, designing, and field work.

The degree of Bachelor of Science is conferred upon a student who successfully completes one of the full courses offered or other equivalent course, aggregating not less than sixty units, which has been approved by the Faculty.

### Scholarships.

*Mary Lowell Stone Scholarship*, founded as "a memorial to a woman student of science, from a woman, for women students of science," consists of a fund of two thousand dollars, the income from which "is to be paid to needy women, students in the Corcoran Scientific School of the Columbian University, at the discretion of the Dean of said School."

*Edward T. Fristoe Scholarship*, founded in memory of the first Dean and Professor of Chemistry of the Corcoran Scientific School, consists at present of a fund of three hundred and fifty dollars, the income from which

may be paid to some deserving student of chemistry at the discretion of the Dean.

*Robertson Scholarship in Accounting*, established by Mr. P. W. ROBERTSON during the past year, is awarded on competitive examination, and entitles the holder to free tuition for one year in this subject.

### Loan Collection of Text-books.

Through the generosity of Mrs. SUSAN MOORE a collection of text-books has been provided, to be loaned to indigent students at the discretion of the Dean.

### Prizes.

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

FAVA PRIZE.—To stimulate students in Engineering, prizes are offered by Francis R. Fava, Jr., Professor of Engineering, to students who attain certain standards in the following branches in the several years of the course:

1. Designing problem in Building Construction (2d year); 2, Report on the Engineering Work with which the student has been connected during his vacation (3d year); 3, Investigation in Graphical Statics (4th year); 4, Degree Work.

Prizes 1 to 3 consist of valuable Engineering works, and Prize 4 of a medal.

The Prizes are awarded by Committees of Eminent Engineers, outside of the University, invited for this purpose by the President. The prize or prizes are given not merely for the *best* among all papers presented, but only for work reaching a certain *standard* required by the specifications. Thus, one student, even if alone, can compete for a prize, or, in the same class, several students can win prizes at the same time.

In order to be admitted to a prize competition an applicant must be at the time a student of that particular class in which the prize is offered and have a satisfactory standing in all the Departments for which he is registered.

SCHMIDT PRIZE.—This prize was established by Mr. Fred. A. Schmidt, of Washington, in 1894, and is to hold good for a period of ten years. The prize consists of a set of Alteneder's Drawing Instruments in a leather case, and is awarded to that student entering the second year in

either Applied Mathematics or Engineering under Professor Fava, who passes highest in a competition examination in Algebra, Geometry, and Mechanical Drawing.

The competition examinations for this prize will be held in the latter part of September in three sessions. First session, Algebra; second session, Plane and Solid Geometry; third session, Mechanical Drawing.

Each examination will extend over such parts of the subjects as are covered by the respective courses (Mathematics, 1, 2; Drawing, 1) in the first year of the Corcoran Scientific School.

The candidates admissible to compete for this prize are those entering either of the Departments of applied Mathematics or Engineering, either as full course or as special students.

No candidate shall be admitted to the tests unless he has previously complied with the rules for registration and matriculation in the Corcoran Scientific School and has, on presentation of satisfactory evidence thereof to the Dean of said School, obtained from him a certificate admitting him to the examinations.

The examinations shall be conducted by Professor FAVA, Head of Department of Engineering and Applied Mathematics, or by such person as he may designate. The decision shall be rendered by him in the first week in October and announced, if possible, on opening day. The formal award of the prize shall take place at the annual commencement; but the winner of the same may, if he so desires, have the use of the instruments during the year.

The final mark to be eligible for the prize shall be 90 per cent. or above.

### Prize Winners.

WILLIE E. FITCH PRIZE.

1889, CLINTON P. TOWNSEND.
1892, HENRY H. HAWLING.
1893, OSCAR JOHN SCHNEIDER.
1894, CHARLES PRESTON PHELPS.

FAVA PRIZE.

1891, CALVIN COLUMBUS JACKSON NORRIS.
1893, ERNEST LAWTON THURSTON.
1894, HAROLD DAVIS.

SCHMIDT PRIZE.

1894, FRED FERGUSON REISNER.

## Annual Tuition Fees.

| | |
|---|---|
| For single studies not involving any laboratory, designing, or field-work | $30 00 |
| For full Courses (in addition to laboratory fees) | 90 00 |
| Laboratory Courses in Chemical Laboratory (except 10) | 100 00 |
| For chemicals used | 25 00 |
| Deposit (returnable) for apparatus injured | 25 00 |
| Course 10 in Chemical Laboratory, including cost of material and apparatus | 50 00 |
| Laboratory Courses in Assaying of Ores and Bullion | 40 00 |
| For materials used | 20 00 |
| Laboratory Courses in Physical Laboratory | 30 00 |
| Laboratory Course in Mineralogy | 60 00 |
| For materials used | 10 00 |
| Laboratory work, field-work, and designing in Civil and Electrical Engineering | 20 00 |
| Final fee for diploma | 10 00 |

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

*All fees are payable in advance*, unless special arrangement be made with the Dean to suit the convenience of the student, notice of which must be filed with the Treasurer. *Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.*

A student desiring to make any change in his course of study or to drop any study *must* inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. *Students failing to conform to this requirement are responsible for the fees entered on their certificates until such notice is rendered.*

## Text-books.

| | | | |
|---|---|---|---|
| Arthur, Barnes and Coulter, Plant Dissection | $1 29 | Brown, Manual of Assaying | $2 50 |
| Andersen, Bilderbuch Ohne Bilder | 30 | Burrell, Building Construction | 80 |
| Andromaque | 25 | Bowser, College Algebra | 1 65 |
| Baker, Masonry Construction | 4 50 | Bowser, Advanced Trigonometry | 1 60 |
| Barker, Physics | 3 78 | Bowser, Calculus | 2 25 |
| Barker, Elementary Chemistry | 1 40 | Breese, Water Wheels | 2 25 |
| Beers, Outlines of American Literature | 60 | Brush, Determinative Mineralogy | 3 15 |
| Bloxam, Chemistry | 3 60 | Bug-Jargal | 40 |
| Blair, Chemical Analysis of Iron | 3 60 | Clowes, Qualitative Analysis | 2 00 |
| | | Cohen, Practical Organic Chemistry | 70 |
| | | Church, Descriptive Geometry | 2 50 |

| | |
|---|---|
| Chase and Stuart, Cæsar, new edition | $1 00 |
| Chase and Stuart, Cicero's Letters | 1 00 |
| Chase and Stuart, Cicero's Orations | 1 10 |
| Chase and Stuart, Cicero's De Senectute, &c | 95 |
| Chase and Stuart, Virgil's Æneid, 6 books | 95 |
| Chase and Stuart, Ovid | 1 10 |
| Chase and Stuart, Livy | 1 10 |
| Chase and Stuart, Horace's Odes, &c. | 1 10 |
| Chase and Stuart, Horace's Selections | 1 00 |
| Chase and Stuart, Tacitus | 95 |
| Chase and Stuart, Juvenal | 95 |
| Chase and Stuart, Pliny's Letters | 1 00 |
| Cooke, Laboratory Practice | 80 |
| Cuore, Italian Grammar | 1 50 |
| Calderwood, Moral Philosophy | 1 60 |
| Dana, Text-book of Mineralogy | 3 15 |
| Dana, Manual of Geology | 3 84 |
| Emtage, Electricity and Magnetism | 1 90 |
| Erckmann-Chatrian, Histoire d'un Conscrit | 1 00 |
| Fava, Descriptive Geometry Lectures | |
| Fava, Graphical Statics Lectures | |
| Fava, Mechanics Lectures | |
| Fiske, Civil Government | 1 00 |
| Fowler, Inductive and Deductive Logic | 1 75 |
| Fresenius, Qualitative Analysis | 3 60 |
| Fresenius, Quantitative Analysis | 5 40 |
| Frieze, Quintilian | 1 20 |
| Gray, Structural Botany | 2 00 |
| Gray, Manual of Botany | 1 62 |
| Geikie, Text-book of Geology | 7 50 |
| Genung, Practical Rhetoric | 1 40 |
| Gerard, Lecons sur l'Electricite, 2 vols | 6 00 |
| Goodale, Physiological Botany | 2 00 |
| Gore, Elements of Geodesy | 2 25 |
| Gore, German Science Reader | 85 |
| Harkness, Latin Grammar | 1 12 |
| Hanus, Determinants | 1 90 |
| Hardy, Quaternions | 2 15 |
| Hauff, Das Kalte Herz | 75 |
| Hempel, Gas Analysis | 1 90 |
| Hurst and Whiting, Seneca | 1 30 |
| Holmes, Steam-engine | 1 60 |
| Johnson, Differential Equations | 3 15 |
| Johnson, Surveying | 3 60 |
| Jevons, (Hill) Logic | 1 00 |
| Kemp, Ore Deposits of the United States | 3 60 |
| Ladd, Outlines of Physiological Psychology | 2 00 |
| Le Conte, Elements of Geology | 3 20 |
| Le Cid | 25 |
| Lacombe, Histoire du Peuple Français | 65 |
| L'Avare | 25 |
| Mackenzie, 19th Century | $1 00 |
| Meiklejohn, English Language | 1 30 |
| Merriam, Least Squares | 1 80 |
| Merriman, Mechanics of Materials | 3 15 |
| Munroe, Chemistry of Explosives | 3 00 |
| McCabe, Bingham Latin Grammar | 1 08 |
| McCabe, Bingham Cæsar | 1 08 |
| Merrill, Stones for Building and Decoration | 4 50 |
| Nichol, Analytical Geometry | 1 38 |
| Nunes El Lector Americano, No. 3 | 50 |
| Packard, Zoölogy, Elementary | 90 |
| Packard, Zoölogy, Briefer | 1 23 |
| Packard, Zoölogy, Advanced | 2 66 |
| Phillips, Engineering Chemistry | 3 20 |
| Porter, Intellectual Science | 2 40 |
| Ramsey, Text-book of Modern Spanish | 1 98 |
| Remsen, Organic Chemistry | 1 30 |
| Rankine, Applied Mechanics | 4 50 |
| Rankine, Machinery and Mill-work | 4 50 |
| Rickett, Notes on Assaying | 2 70 |
| Richter, Organic Chemistry | 3 60 |
| Rivington's Building Construction, vol 1 | 3 15 |
| Rivington's Building Construction, vol. 2 | 3 15 |
| Rivington's Building Construction, vol. 3 | 5 40 |
| Rivington's Building Construction, vol. 4 | 4 00 |
| Rice and Johnson, Differential Calculus | 3 15 |
| Slingo and Brooker, Electrical Engineering | 2 80 |
| Shaw, Manual of English Literature | 1 68 |
| Storm, Immensee | 25 |
| Thompson, Dynamo-electric Machinery | 4 80 |
| Trautwine, Engineer's Pocketbook | 4 50 |
| Tuthill, Architectural Drawing | 2 00 |
| Thorpe, Quantitative Analysis | 1 35 |
| Unwin, Machine Design, vol. 1 | 1 60 |
| Unwin, Machine Design, vol. 2 | 1 20 |
| Van Daell, Introduction to French Language | 1 10 |
| Ward, Flora of Washington, unbound | 50 |
| Warren, Descriptive Geometry | 2 25 |
| Wagner, Chemical Technology | 6 00 |
| Wright, Adjustment of Observations | 4 00 |
| Weisbach, Theoretical Mechanics | 9 00 |
| Wells, Plane and Solid Geometry | 1 50 |
| Wells, Plane and Spherical Trigonometry | 1 50 |
| Williams, Crystallography | 1 36 |
| Young, General Astronomy | 2 50 |
| Zettel, Handbuch der Paleontologie. Issued in parts; prices vary. | |

### Rooms and Board.

During the year 1894–1895 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month. Lists of persons offering rooms and board can be obtained from the Registrar.

For further information regarding the Corcoran Scientific School, application may be made to

PROFESSOR CHARLES E. MUNROE, *Dean.*

## STUDENTS IN THE CORCORAN SCIENTIFIC SCHOOL.

### Candidates for Degrees.

| Name. | Address. |
|---|---|
| John Phipps Alexander, District of Columbia, | 815 14th St., N.W. |
| Rutland D. Beard, Maryland, | 1207 10th St., N.W. |
| Frederick Brooke Berry, District of Columbia, | 1318 11th St., N.W. |
| David Holmes Blakelock, District of Columbia, | 619 6th St., N.W. |
| Eugene Bradbury, Virginia, | Arlington, Va. |
| Charles Fremont Burnside, Washington, | 1219 I St., N.W. |
| Clarence Metz Butler, Minnesota, | 520 Spruce St., N.W. |
| George H. Campbell, Maine, | 301 8th St., N. E. |
| M. Agnes Clancy, District of Columbia, | 33 Myrtle St., N. E. |
| Clark Waller Combs, Kansas, | 1806 Riggs Place, N.W. |
| James Lewis Cousar, Arkansas, | 1012 12th St., N.W. |
| S. Clark Cross, District of Columbia, | 138 11th St., N. E. |
| Armando de Mendonca, Brazil, | 1800 N St., N.W. |
| George G. Dennison, Louisiana, | 515 3d St., N.W. |
| Maurice Owen Eldridge, Tennessee, | 933 H St., N.W. |
| Alfredo Victor Gana, Chile, Ph. B., University of Chile, 1893. | 1330 Massachusetts Ave., N.W. |
| A. M. Graham, Pennsylvania, | 1714 Q St., N.W. |
| Jay Bush Hanchett, New York, | 508 3d St., N. E. |
| Henry Harlowen Hawling, Virginia, | 2135 L St., N.W. |
| Roy Bagley Hayes, Wisconsin, | 626 O St., N.W. |
| Ralph Warren Hills, Ohio, | 1345 Vermont Ave., N.W. |
| L. B. Holbrook, District of Columbia, | 1326 12th St., N.W. |

| Name. | Address. |
|---|---|
| N. Monroe Hopkins, District of Columbia, | 1730 I St., N.W. |
| John Bartlett Hull, Georgia, Lieut. U. S. R. M. S. | 509 L St., N.W. |
| Albert Howard Johnson, District of Columbia, | 1706 9th St., N.W. |
| John Scott Johnson, Texas, B. S., Columbian University, 1893. M. A., Columbian University, 1894. | 1460 Corcoran St., N.W. |
| R. H. C. Kelton, District of Columbia, | 1841 R St., N.W. |
| William Mather Lamson, District of Columbia, | Anacostia. |
| Corrado H. Lanza, District of Columbia, | 1601 20th St., N.W. |
| Hedding B. Leech, District of Columbia, | 631 Maryland Ave., N. E. |
| Trevor William Leutze, California, | United States Navy Yard. |
| Frederick Nelson Libby, Wisconsin, | 712 N St., N.W. |
| John Benjamin Lichty, Illinois, | 458 C St., N.W. |
| Carl A. Loeffler, Pennsylvania, | 1632 P St., N.W. |
| C. A. Martin, Kansas, | 2 Dupont Circle, N.W. |
| Victor L. Mason, District of Columbia, | 1324 Corcoran St., N.W. |
| Timothy Francis Maurin, Louisiana, | 917 R St., N.W. |
| Thomas Herbert Means, Virginia, | 1109 B St., N. E. |
| Paul W. Milburn, Montana, | 1901 Vermont Ave., N.W. |
| Edward Adams Muir, Pennsylvania, | 512 3d St., N.W. |
| David H. Oertly, District of Columbia, | 643 G St., N. E. |
| Charles C. Owens, Maryland, | Hyattsville, Md. |
| Charles Lieberman Parker, District of Columbia, | 1425 Corcoran St., N.W. |
| Jesse Pawling, Jr., Pennsylvania, | Nautical Almanac Office. |
| Joseph Saxton Pendleton, District of Columbia, | 1752 M St., N.W. |
| Frederick F. Reisner, Missouri, | 323 Maple Ave., N.W. |
| Thomas Jefferson Rout, Jr., District of Columbia, | 1121 V St., N.W. |
| William S. Sheets, District of Columbia, | 617 22d St., N.W. |
| William T. Smith, Georgia, | General Land Office. |
| Perley Egbert Stevens, District of Columbia, | 202 11th St., S.W. |
| Morton Warwick Stevenson, Ohio, | 911 U St., N.W. |
| August B. Tolman, Massachusetts, | War Department. |

| Name. | Address. |
|---|---|
| Henry Ward Turner, California, | 1411 Chapin St., N.W. |
| Mayville William Twitchell, New York, | 709 8th St., N. E. |
| C. D. Vining, District of Columbia, | 1110 13th St., N.W. |
| Frank A. Woodward, District of Columbia, | 125 New York Ave. |
| Frederick Edward Young, District of Columbia, | 1610 15th St., N.W. |

Candidates for degrees..... 57

**Special Students.**

| Name. | Address. |
|---|---|
| Walter C. Allen, California, | 1009 13th St., N.W. |
| Charles G. Anderson, District of Columbia. | 1433 P St., N.W. |
| John E. Armstrong, New York, | Prospect Hill, N. E. |
| Charles Mason Baker, District of Columbia. | 1739 19th St., N.W. |
| E. Benton Berry, District of Columbia, | 2304 Washington Circle, N.W. |
| Robert T. Bibb, Texas, | 600 M St., N.W. |
| Frances M. Bickford, District of Columbia, | 1912 15th St., N.W. |
| William Frederick Biehl, Ohio, | 1820 9th St., N.W. |
| L. Alice Bingham, Iowa, | 631 East Capitol St. |
| Daniel T. Birtwell, Pennsylvania, | 238 Maryland Ave., N. E. |
| Frank L. Biscoe, District of Columbia, | 813 21st St., N.W. |
| George W. Blacksten, Maryland, | 416 K St., N.W. |
| Harry Blake, Virginia, | 1415 Rhode Island Ave., N.W. |
| Martha E. Bowden, Virginia, | 809 9th St., N.W. |
| Henry Boyd, New York, | 2305 Pennsylvania Ave., N.W. |
| W. H. Burton, District of Columbia, | 114 4½ St., S.W. |
| Mary F. Callahan, Maryland, | Chevy Chase, Md. |
| Harriet L. Cameron, Minnesota, | 419 9th St., N. E. |
| Fred. W. Campbell, South Carolina, | 913 I St., N.W. |
| William Asbury Case, District of Columbia. | 812 S St., N.W. |
| Alfred B. Claxton, District of Columbia, | 1456 V St., N.W. |
| William H. Conley, District of Columbia, | 1609 S St., N.W. |
| L. C. Conwell, Iowa, | 927 9th St., N.W. |
| Frederick Adelbert Cooley, Georgia, | 722 13th St., N.W. |

| Name. | Address. |
|---|---|
| Thomas L. Costigan, Delaware, | 202 Arthur Place, N.W. |
| Jessie H. Crawford, Illinois, | 506 M St., N.W. |
| E. V. Crittenden, West Virginia, | 911 H St., N.W. |
| R. H. Dalgleish, District of Columbia, | 1323 Rhode Island Ave., N.W. |
| Bart Daly, New York, | 813 5th St., N.W. |
| Ida M. Daly, District of Columbia, | 922 T St., N.W. |
| Joshua Davis, District of Columbia. | |
| James M. Dean, Virginia, | 508 7th St., S.W. |
| Joseph Dempf, District of Columbia, | 311 F St., N. E. |
| George Dempsey, District of Columbia, | 1762 Corcoran St., N.W. |
| Joseph G. Dill, Missouri, | 1307 13th St., N.W. |
| Lillian A. Dill, District of Columbia, | 1307 13th St., N.W. |
| Ella Loraine Dorsey, District of Columbia, | 2119 California Ave., N.W. |
| K. Dreckmoinn, District of Columbia, | 124 F St., N.W. |
| John Fred. Duggar, Mississippi, | 629 East Capitol St. |
| George E. Dunton, Maine, | 1525 I St., N.W. |
| Sigmund Ehrlich, District of Columbia, | 337 F St., N. E. |
| Edmund Percy Ellis, District of Columbia, | 121 11th St., N. E. |
| Luman Millott Ellis, Ohio. | 1707 19th St., N.W. |
| Forrest F. Fadeley, District of Columbia, | 1211 13th St., N.W. |
| Charles Fair, District of Columbia, | 134 6th St., N. E. |
| Harry Farmer, Iowa, | 1820 9th St., N.W. |
| F. E. Farnham, District of Columbia, | Navy Yard. |
| Sarah M. Farr, District of Columbia, | 1120 5th St., N.W. |
| Rupert Farrar, District of Columbia, | 1228 C St., S.W. |
| Elmer S. Farwell, Illinois, | 1219 I St., N.W. |
| William Thomas Faulkner, Mississippi, | 713 11th St., N.W. |
| Frank Dexter Fletcher, New York, | 1332 R St., N.W. |
| John E. Fletcher, Louisiana, | 107 2d St., N. E. |
| I. N. Fluckey, Illinois, | 1304 W St., N.W. |
| Mina Fountaine, Virginia, | 1775 Madison St., N.W. |
| Harry S. Garner, Pennsylvania, | Department of State. |
| Henry Wise Garnett, District of Columbia, | 1319 New York Ave., N.W. |
| Carl L. Garrison, District of Columbia, | 944 S St., N.W. |
| Ellen Golden, New York, | 1714 Q St., N.W. |
| Horace D. Goodale, New York, | 1630 Riggs Place, N. W. |
| Howard S. Gott, Michigan, | War Department. |

| Name. | Address. |
|---|---|
| Lee Roberts Grabill, Missouri, | 1413 V St., N.W. |
| Elwyn Greene, Minnesota, | 453 M St., N.W. |
| William Hearne Grimes, District of Columbia, | 607 Q St., N.W. |
| Gertrude Grosvenor, Ohio, | 1524 14th St., N.W. |
| Edward H. Grove, District of Columbia, | 1807 I St., N.W. |
| W. T. Hackett, Maryland, | Brookland, D. C. |
| James Hamilton, Massachusetts, Graduate U. S. M. A. | Washington Barracks. |
| N. L. Hamner, District of Columbia, | Lincoln Ave., N. E. |
| Carrie J. Harris, North Carolina, | 1507 Vermont Ave., N.W. |
| N. S. D. Harrison, Virginia, | 1617 17th St., N.W. |
| Franklin Wilson Hart, District of Columbia, | 1321 11th St., N.W. |
| Wilbur Hawxhurst, District of Columbia, | 69 P St., N.W. |
| W. P. Hay, District of Columbia, | Central High School. |
| Florence Heath, North Carolina, | Forest Glen, Md. |
| W. S. Heath, District of Columbia, | 431 G St., N.W. |
| Leon H. Herbert, District of Columbia, | 440 9th St., N.W. |
| J. Edgar Hiatt, Indiana, | 817 3d St., N.W. |
| William Eldridge Hillyer, Florida, | 412 A St., S. E. |
| Kirk Holmes, Minnesota, | Navy Department. |
| John Rees Hudson, Jr., Georgia, | Geological Survey. |
| Harry W. Hughes, New York, | 1614 19th St., N.W. |
| W. B. Ingersoll, Maryland, | 479 C St., N.W. |
| J. Burr Johnson, District of Columbia, | 1447 U St., N.W. |
| Philip M. Jullien, District of Columbia, | Brookland, D. C. |
| Charles F. Karr, District of Columbia, | 215 3d St., N.W. |
| Willard A. Keene, District of Columbia, | Brightwood, D. C. |
| J. Edwin Kennedy, District of Columbia, | 220 N St., S. E. |
| Margaret Keogh, District of Columbia, | 1227 L St., N.W. |
| William Houston Kerr, Missouri, | Department of Labor. |
| Mineola Kirkland, District of Columbia, | 1106 B St., N. E. |
| Paul A. Kuhnel, District of Columbia, | 625 Massachusetts Ave., N. E. |
| Joseph Bayard Lamkin, Georgia, | Interior Department. |
| Leona May Latham, Delaware, | 1204 T St., N.W. |
| Charles F. Lemmon, District of Columbia, | 208 11th St., N. E. |
| Fulton Lewis, Maryland, | 1546 Park St., N.W. |
| Thaddeus H. Libby, District of Columbia, | 17 E St., N.W. |

| Name. | Address. |
|---|---|
| Olof Axel. Ljungstedt, District of Columbia, | 1453 Q St., N.W. |
| Edward F. Looker, District of Columbia, | 1312 30th St., N.W. |
| Otto J. J. Luebkert, District of Columbia, | 307 H St., N.W. |
| A. B. Lyon, District of Columbia, | 1202 K St., N.W. |
| Janet McWilliam, District of Columbia, | 2142 K St., N.W. |
| Merrill A. Martin, Vermont, | 19th and E Sts., S. E. |
| Sidney B. Martin, District of Columbia, | 1326 T St., N.W. |
| Adelia Estelle Mathewson, New York, | 1911 8th St., N.W. |
| Frank P. Mendenhall, District of Columbia, | St. James Hotel. |
| Walter Curran Mendenhall, Ohio, | Geological Survey. |
| Margaret J. Merillat, District of Columbia, | 1430 8th St., N.W. |
| Thomas S. Merrill, District of Columbia. | 416 Maple Ave., N.W. |
| Jefferson Middleton, District of Columbia, | Brightwood, D. C. |
| Robert Miller, Massachusetts, | 636 15th St., N. E. |
| Stephen C. Miller, Minnesota, | 1324 New York Ave., N.W. |
| Joseph S. Mills, Maryland, | 1423 8th St., N.W. |
| D. C. Moore, District of Columbia, | 923 19th St., N.W. |
| John D. Morgan, Washington, | 1453 Kenesaw Ave., N.W. |
| Julian Morton, California, | Interior Department. |
| Joseph Francis Mulhall, District of Columbia, | 1200 19th St., N. W. |
| Louise Barker Munroe, District of Columbia, | 1729 Riggs St., N.W. |
| Ida Munroe, Georgia, | Forest Glen, Md. |
| Charles Henry Neely, District of Columbia, | 1829 9th St., N.W. |
| Robert William Neely, District of Columbia, | 1829 9th St., N.W. |
| Alexander T. Nelson, District of Columbia, | Hotel Johnson. |
| Carrie B. Norman, Mississippi, | 1017 12th St., N.W. |
| Edward R. Noyes, District of Columbia, | 500 Maryland Ave., S.W. |
| Sophie Nussbaum, New York, | 813 Vermont Ave., N.W. |
| Charles A. O'Neill, District of Columbia, | Congressional Cemetery. |
| George Baden Pfeiffer, Maryland, | 501 Stanton Pl., N. E. |

| Name. | Address. |
|---|---|
| Charles Preston Phelps, District of Columbia, | 113 3d St., N. E. |
| Francis Elmer Phelps, Maryland, | 619 B St., S. E. |
| Florence Estelle Plant, District of Columbia, | 912 R St., N.W. |
| George F. Plugge, District of Columbia, | 474 Pennsylvania Ave., N.W. |
| Anna Maria Polk, Georgia, | 218 2d St., S. E. |
| Z. Porter, New York, | 809 9th St., N.W. |
| Katherine M. Raber, District of Columbia, | 1914 3d St., N.W. |
| Charles H. Raeder, District of Columbia, | 51 F St., N.W. |
| William G. Rawles, District of Columbia, | Washington Barracks. |
| William Asher Rawson, Michigan, | 230 N St., N.W. |
| Byron L. Reed, Michigan, Lieut. U. S. R. M. | 1740 R St., N.W. |
| Doctrine Hugh Reed, North Carolina, | 812 1st St., N.W. |
| Katherine Reed, Maine, | The Shoreham. |
| L. H. Reichelderfer, District of Columbia, | 1205 Q St., N.W. |
| D. Weimer Reinohl, District of Columbia, | 1332 8th St., N.W. |
| Bowie Roberts, Maryland, | 921 Westminster St., N.W. |
| John A. Roeder, New York, | 1523 17th St., N.W. |
| John C. Rose, District of Columbia, | 164 6th St., S.W. |
| William Percy Rose, District of Columbia, | 419 6th St., N.W. |
| Elmer G. Runyan, Michigan, | 1008 I St., N.W. |
| Edward B. Russ, Pennsylvania, | 501 E St., N. E. |
| Arthur L. Russell, Texas, | 234 E St., N. E. |
| E. G. Russell, Georgia, | 1224 13th St., N.W. |
| Albert M. Sames, District of Columbia, | 1224 S St., N.W. |
| Salvador Sanders, District of Columbia, | 532 11th St., S. E. |
| O. C. Saum, District of Columbia, | 619 E St., N.W. |
| Charles Schuchert, Ohio, | 906 F St., N.W. |
| Andrew John Schwartz, West Virginia, | 90 K St., N. E. |
| Juliet M. Searle, District of Columbia, | 1029 8th St., N.W. |
| Albert F. Skinner, Virginia, | 514 2d St., N.W. |
| Gratz Brown Strickler, Missouri, | 3343 Prospect Ave. |
| Henry Gordon Strong, District of Columbia, | 1626 K St., N.W. |

| Name. | Address. |
|---|---|
| F. Milton Supplee, District of Columbia, | 1110 L St., N.W. |
| Scott A. Swearingen, Louisiana, | 1303 F St., N.W. |
| Mabel H. Swingle, District of Columbia, | 24 8th St., N. E. |
| Thomas J. Taylor, District of Columbia, | 1424 New York Ave., N.W. |
| Lulu B. Thorne, District of Columbia, | 154 East Capitol St. |
| David LeRoy Topping, New York, | 717 11th St., N. E. |
| L. D. Underwood, District of Columbia, | 1001 11th St., N.W. |
| Merton Benway Waite, Illinois, | Department of Agriculture. |
| Charles Edward Waller, New York, | 1639 10th St., N.W. |
| Mary B. Warren, New York, | 1623 13th St., N.W. |
| Mark A. Watson, California, | 1337 15th St., N.W. |
| August Wedderburn, Virginia, | Dunn Loring, Va. |
| Eunice H. Welch, District of Columbia, | 631 A St., N. E. |
| Nellie Wheeler, Missouri, | 626 B St., S.W. |
| Edward White, District of Columbia, | Washington Loan and Trust Building. |
| Frances Williams, Kansas, | 1524 14th St., N.W. |
| Richard Winckelmann, District of Columbia, | 1122 7th St., N. E. |
| T. A. Witherspoon, District of Columbia, Graduate U. S. N. A. | 1217 K St., N.W. |
| H. C. Workman, Michigan, | 505 3d St., N.W. |
| Clarence D. Wright, District of Columbia, | 630 G St., N.W. |
| John Newton Wright, District of Columbia, | The Oxford. |

Special Students ..... 180

# THE UNIVERSITY EXTENSION.

W. C. LANGDON, JR., A. M., DIRECTOR.

To promote a wider interest in learning and to enable a larger number of people to avail themselves of the privileges of the University, the Trustees have inaugurated in the Corcoran Scientific School during the past year University Extension Courses in addition to those given within the University itself.

University Extension is a system of higher education, devoted to the dissemination of sound and systematic intellectual life among all classes of people, especially those who are not in direct contact with university life. It takes the university, ready to adapt itself so far as possible to special conditions, to those who are for any reason unable to avail themselves of the benefits of university residence.

METHODS.—University Extension emphasizes the personal teaching of the university-trained man. Its present methods comprise the Lecture Course and the Class Course.

1. The Lecture Course usually consists of a series of six weekly meetings with the lecturer, each meeting occupying about two hours. The first hour is given up to a lecture. Under the guidance of the lecturer, students write papers on special phases of the subject, which form the basis for part of the general discussion to which the second hour is given. A syllabus or text-book is used.

2. The Class Course usually consists of a series of ten weekly meetings with the lecturer, each meeting occupying about one hour. The lecture is omitted. Personal teaching, study, and discussion, following a required text-book, take up the entire time.

TIME AND PLACE OF MEETING.—These are arranged to suit the convenience of the members of the centers and classes.

EXAMINATION.—An examination is offered to those who desire it. A certificate testifying to the work done is given to those passing the examination satisfactorily.

SUBJECTS.—Courses are offered and lecturers may be secured for all subjects generally taught in colleges and universities: Philosophy, Psychology, English Literature, American Literature, History, Civics, Economics,

and Science. Foreign literatures may be studied through translations if desired.

LECTURERS.—The lecturers are either professors in the Columbian University or are specially approved by the University.

SUGGESTIONS FOR ORGANIZATION.—Personal effort is always the most successful. The first step should be to get together five or more persons who would be willing to devote time to the work of arousing interest in University Extension. The Director will always be glad to assist in any such undertaking. It is often advantageous to work in coöperation with some other organization already existing, such as Chautauqua circles, church guilds, literary or debating clubs.

FEES.—The fees are due at the time of the second meeting from the center or class as a whole. The cost to the individual varies according to the number of members in the center or class. The price of course tickets has usually been between $1.00 and $2.50 for each individual.

COURSES FOR 1894–1895.

1. Georgetown Heights: English Literature (5 lectures).
2. All Souls' Church: American Literature (6 lectures).
3. All Souls' Church: Personality in Literature (10 lectures).
4. Waugh Chapel: History of Art, illustrated with stereopticon (6 lectures).

For further information address

THE DIRECTOR OF THE WASHINGTON UNIVERSITY EXTENSION,
THE COLUMBIAN UNIVERSITY,
WASHINGTON, D. C.

# THE SUMMER SCHOOL.

The Summer School of the Columbian University, which was established as a branch of the Corcoran Scientific School, with Professor Lee Davis Lodge, Ph. D., as Dean, held its first session from July 1 to August 12, 1894.

## COURSES OF STUDY.

### Assaying.

MR. CABELL WHITEHEAD, B. M.

I. Practical Assaying. Three hours.

This course is designed to prepare students for the work of mine and mill assayers. It will cover the assay of gold, silver, and lead ores. The course is entirely practical and is taught in eighteen exercises, three each week.

Text-book: Ricketts.

### Astronomy.

MR. HERBERT L. RICE, M. S.

I. A popular study of the summer constellations, the circumpolar stars, and those planets which are above the horizon. Three hours.

Particular attention will be paid to double, multiple, and variable stars; also nebulæ and clusters.

The opera or field glass will be of frequent use, besides the three-inch telescope of the University. Occasional visits will be made to the new Naval Observatory at Georgetown Heights, where fainter objects will be revealed by the nine-inch equatorial.

Various texts and charts will be suggested for reference.

II. A course in Practical Astronomy, for determining latitude, longitude, and time, from observations made by the students, will be given if desired.

**Engineering and Applied Mathematics.**

PROF. FRANCIS R. FAVA, C. E.
INSTRUCTOR FRANK L. AVERILL, C. E.
MR. EDWARD A. MUIR.
MR. JOHN SCOTT JOHNSON, A. M.

A. *Applied Mathematics:*

I. Elements of descriptive geometry, with exercises. Three hours. Recommended either as a review or as an introductory course to further studies.

II. Elements of perspective, with exercises. Two hours.

☞ Other courses may be arranged for on application.

B. *Civil Engineering:*

I. Elements of surveying. For students without preparation. Six hours.

II. Railroad curves and advanced surveying. Six hours.

III. In August: A course in elementary surveying, of 10 working days *in the field* (probably Harper's Ferry, W. Va.). For not less than 10 nor more than 20 students.

IV. In August: A course of *field practice* in railroad and engineering field-work, for 10 working days. For not less than 10 students.

V. In September: A week's tour, to visit the engineering works of the principal neighboring cities. For not less than 10 nor more than 30 students.

☞ Students participating in courses III, IV, and V will be required to pay their own board and traveling expenses.

VI. Elements of building construction, with practical demonstrations on buildings in course of erection. Four hours.

VII. A special course in street railroads, with practical inspection of the railroads of this city and Baltimore. For not less than 10 students. Four hours.

VIII. Photography applied to engineering, with practice. Four hours.

### French.

DR. LEE DAVIS LODGE.

I. The rudiments of French. Two hours.

II. French literature of the XVIIth century. Two hours.

III. Special courses, subject to arrangement. Two hours.

### German.

DR. P. FIREMAN.

I. Goethe's Faust (part I) will be translated and interpreted. Three hours.

II. A course in conversation, with readings from Bilderbuch ohne Bilder or from Heine's Harzreise. Three hours.

### History.

DR. EDWARD FARQUHAR.

I. A lecture course on American or other history, subject to arrangement. Two hours.

### Italian.

MR. M. M. RAMSEY, B. S.

I. Elementary course, for beginners.
Similar to course I in Spanish.

II. Italian phonetics.
A course offering thorough drill in the quality and quantity of Italian voice-sounds, pronunciation, and expression. Designed especially for students of vocal music.

III. More advanced course.
Some one masterpiece of Italian literature will be read and discussed, accompanied with exercises in composition.
Text-books: Grandgent's Italian Grammar and Composition.

### Latin.

MR. ERNEST L. THURSTON, C. E.

I. A course in the rudiments of Latin, including a study of the essentials of Latin Grammar and practice in simple exercises. Three hours.

II. A course in reading Latin. Latin Grammar. Exercises. Three hours.

### Mathematics.

MR. H. G. HODGKINS, A. B.

I. Algebra. Four hours.

II. Plane Geometry. Four hours.

III. Plane Trigonometry. Four hours.

These courses are designed primarily for beginners, and are intended to carry the student through simple equations in Algebra; through two books of Plane Geometry, and through Plane Trigonometry. The Instructor will strive to give the student a solid foundation in these branches in preference to covering more ground.

Should a sufficient number apply, classes will be formed for a rapid review of Algebra, Plane and Solid Geometry, and Plane and Spherical Trigonometry. Such advanced classes will be for those having already completed the several subjects, but desirous of a thorough review.

### Mechanical Drawing.

MR. ERNEST L. THURSTON, C. E.

I. Mechanical Drawing as applied to Patent Office work.

Practice in mechanical shading and expression. Practice in model drawing from Patent Office models. Three hours (with several hours extra practice).

MR. EDWARD A. MUIR.

Two short courses in Mechanical Drawing, as applied to Machine Shop Practice.

I. A course in the elements of projection for beginners.

The subject is studied by drawing the projections of simple geometric solids in their proper and most practical relations to each other, with the development of their surfaces and intersections. The course is intended to give the student a knowledge of the theory of projections. Four hours.

II. A course in working drawings, details, and general practice.
The practical application of projections is studied by making working drawings, details of machines, etc. Special attention is paid to proper dimensioning and arrangement of details. This course is intended to give the student a knowledge of how *to make* and how *to read* a working drawing. Four hours.

☞The drawing-room will be open each evening from 6 to 8 to accommodate students who desire extra practice.

### Philosophy.

DR. J. MACBRIDE STERRETT.

I. Greek Ethics or Ethics of Kant and Hegel.
II. Greek Philosophy or Modern Philosophy.

### Applied Psychology.

DR. LEE DAVIS LODGE.

I. Lecture course, designed especially for teachers, in which the principles of educational theory are reduced to their bases in psychology. Two hours.

### The Physical Sciences.

DR. J. E. BLOMÉN.

A. *Physics:*

I. An elementary course in physics, with experiments. Three hours. Particular attention will be paid to the explanation of the more commonly occurring natural phenomena.

Text-book: E. M. Avery, Elements of Natural Philosophy.

II. Preparatory course in electricity, especially intended for students contemplating taking the course in the Columbian University leading to the degree of Electrical Engineer. Two hours.

Text-book: G. F. Barker, Physics.

B. *Chemistry:*

I. Chemical theory and processes. Three hours.
An elementary course preparatory to a more advanced course in chemistry. This course is subject to the direction of Dr. Charles E. Munroe.

Text-book: Lessons in Elementary Chemistry, Inorganic and Organic, by Sir Henry E. Roscoe.

### Portuguese.

MR. M. M. RAMSEY, B. S.

I. An elementary course, covering the rudiments of the grammar, with reading exercises. Two hours.

II. A course in the phonology, syntax, and word-formation of the Portuguese language in their relation to Spanish and Latin. One hour.

### Russian.

DR. P. FIREMAN.

I. A course in elementary grammar, with reading of Russian tales. Three hours.

II. A more advanced course will be arranged to meet the desires of applicants.

### The Scandinavian Languages.

DR. J. E. BLOMÉN.

I. A course in the grammar of the Swedish language, with conversations. Three hours.
Text-book: Ollendorff's Method.

II. The development of the Norwegian language. A comparison of the ancient and modern Norwegian literature, and its past and present relations to the Danish and Swedish languages. Two hours.
Text-books: Holberg's Comedier, and Ibsen, Kjerlighedens Comedie.

### Spanish.

MR. M. M. RAMSEY, B. S.

I. Elementary course, for beginners.
This course is intended to take the student through the rudiments of the grammar and enable him to read easy prose.

II. Spanish conversation.
This course is designed for students who have already acquired some readiness in speaking Spanish, and will be devoted to practice and the correction of errors. (No English spoken.)

III. Spanish literary style.
A course for advanced students in literary style, the principles of criticism, syntax, and rhetoric.
Text-book: Ramsey's Text-book of Modern Spanish.

The fee for a single course is ten dollars. The payment of twenty dollars admits the student to all the courses. Only those courses are given for which a sufficient number of applicants present themselves. The number of hours mentioned under each course means hours per week.

Particular attention is called to the fact that each course when completed will constitute a definite unit of work, which will be accepted by the University in lieu of the same work in the Columbian College and in the Corcoran Scientific School. Attention is also invited to the unusual facilities for language study here provided, instruction being offered in nine different languages.

All classes are open to students of either sex above the age of sixteen.

For further information address Prof. Lee Davis Lodge, Ph. D., Dean of the Summer School.

**Students in Summer School.**

| | |
|---|---|
| Frederick Ludwig Johannes Boettcher, B. S., Virginia, | Agricultural Department. |
| Alfred Doolittle, Pennsylvania, | 7 Cooke Place, N.W. |
| Ella Loraine Dorsey, District of Columbia, | 2119 California Ave., N. W. |
| Maurice O. Eldridge, Tennessee, | 933 H St., N.W. |
| John B. Hull, Lt. U. S. R. M. S., Georgia, | Treasury Department. |
| Eleanor Marston, Pennsylvania, | 817 12th St., N.W. |
| Lawrence O. Murray, LL. M., New York, | 1209 K St., N.W. |
| Byron L. Reed, Lt. U. S. R. M. S., Michigan, | Treasury Department. |
| William Tayloe Snyder, LL. M., District of Columbia, | 1317 19th St., N.W. |
| William L. Speiden, Virginia, | 1551 9th St., N.W. |
| Robert Sterrett, District of Columbia, | Springland, Pierce Mill Road. |
| Henry Gordon Strong, District of Columbia, | 1626 K St., N.W. |
| Alexander Summers, Tennessee, | Bureau of Education. |
| W. E. Thompson, Georgia, | 827 5th St., N.W. |

**Recapitulation.**

| | |
|---|---|
| Candidates for degrees, . . . . | 57 |
| Special students, . . . . . | 194 |
| | 251 |

# THE GRADUATE SCHOOL.

**Faculty.**

THE REV. SAMUEL H. GREENE, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

J. HOWARD GORE, PH. D.,
Professor of Mathematics.

LEE D. LODGE, PH. D.,
Professor of French and Political Philosophy, and Secretary of the Faculty.

D. KERFOOT SHUTE, M. D.,
Professor of Anatomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, PH. D.,
Professor of Zoölogy.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

CLEVELAND ABBE, PH. D.,
Professor of Meteorology.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

EDGAR FRISBY, A. M.,
Professor of Astronomy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

WILLIAM T. HARRIS, PH. D.,
Professor of Philosophy.

EMIL A. DE SCHWEINITZ, PH. D.,
Professor of Bio-Chemistry.

FRANK W. CLARKE, S. B.,
Professor of Mineral Chemistry.

HARVEY W. WILEY, PH. D.,
Professor of Agricultural Chemistry.

THE REV. FRANK H. BIGELOW, A. M.,
Professor of Solar Physics.

ALEXANDER S. CHRISTIE, LL.M.,
Professor of Mathematical Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics.

EXUM PERCIVAL LEWIS, B. S.,
Professor of Electrical Engineering.

EDWARD FARQUHAR, PH. D.,
Assistant Professor of English.

H. CARRINGTON BOLTON, PH. D.,
Professor of Bibliography and Bibliology.

CHARLES E. BARRY,
Professor of Architecture.

LOUIS AMATEIS,
Professor of Fine Arts as Applied to Architecture.

CHARLES F. MARVIN, A. B.,
Assistant Professor of Meteorology.

BEVERLEY T. SENER, LL. M.,
Registrar.

**Board of Directors of University Studies.**

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HERMAN SCHOENFELD, Ph. D., Professor of German.
THE REV. J. MACBRIDE STERRETT, D. D., Professor of Philosophy.
THE REV. FRANK H. BIGELOW, A. M., Professor of Solar Physics.

The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and was opened for the reception of students on Thursday, the 5th of October, 1893. The Third Session will begin October 4, 1895.

The School will be opened each year with a public address by a member of the Faculty. The opening address of the scholastic year 1895–'96 will be delivered by the Rev. Dr. Adoniram J. Huntington.

### Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Architect (Arch.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors of the School; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors of University Studies.

### Masters' Degrees.

Persons holding degrees of A. B. from institutions of repute are qualified to enter as candidates for the degree of A. M., and those holding B. S. degrees for the degree of M. S.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present a satisfactory thesis on this subject.

### Engineering and Architectural Degrees.

Persons holding the degree of B. S. in Engineering courses, or their equivalent, from institutions of repute, are qualified to enter as candidates for the degrees of C. E. and E. E., and those holding the degree of B. S. in Architectural courses are qualified to enter as candidates for the degree of Arch.

Candidates to be eligible shall pass one year at this University in the advanced study of engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

### Doctors' Degrees.

Persons holding degrees of Master in Science, in Art, or their equivalent, from institutions of repute, are qualified to offer themselves as candidates for the degree of Ph. D.

Candidates for the degree of Ph. D. shall offer themselves in three topics for advanced study—one major and two collateral minor subjects. Before being admitted as candidates they shall pass satisfactory examinations in French and German, shall pay an examination fee of five dollars for the examination in each of those tongues, and shall pay a matriculation fee of ten dollars.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in the study at this University of their major topic and one year in the study of each minor topic; they shall sustain satisfactory examinations upon the three subjects which they may have elected, and they shall present theses embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts, and shall accompany with an exhaustive bibliography.

### Fees.

The matriculation fee of candidates for any degree conferred by the University in this School is ten dollars.

The annual fee for instruction and direction of candidates for Masters' degrees is thirty dollars.

The annual fee for instruction and direction of candidates for an Engineering, an Architect's, or a Doctor's degree is ninety dollars.

Where laboratory courses are taken, whether for a Master's, an Engineering, or a Doctor's degree, the fee in excess of the above-mentioned fees will be fixed according to regulations prescribed by the Board of Directors, with the approval of the Corporation.

The final fee for the diploma is ten dollars.

### Commencement.

Candidates for degrees are expected to appear at the Commencement Exercises in academic gowns and hats.

### Theses.

All theses must be presented on the official thesis paper of the University, and they must be typewritten when possible. Official Thesis Paper can be obtained from the Treasurer of the University on application.

All theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives; but authors are permitted to make copies by applying to the Dean.

Candidates who receive the Ph. D. degree are expected to have their theses printed as early as practicable after graduation and present fifty copies of the printed thesis to the University through the Dean, to be distributed among the learned institutions in different parts of the world.

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* shall close at least five weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least three weeks before the date of commencement."

### Special Information.

Inquiries for special information concerning graduate studies in Language, in Speculative Philosophy, in Moral, Political, and Historical Philosophy, and in Anthropology should be addressed to the President of the University.

Inquiries for special information concerning graduate studies in Mathematics, in Astronomy, in Chemistry and Physics, in Geology, in Zoölogy, in Comparative Anatomy, in Meteorology, in Architecture, and in Civil and Electrical Engineering should be addressed to the Dean of the Graduate School.

### Courses of Study in the Graduate School.

The following courses of study are offered to students in the Graduate School. Candidates for the degree of Ph. D. will be required to select their major subject from among those offered below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors of the Graduate School.

### English.

PROFESSOR SHUTE.
ASSISTANT PROFESSOR FARQUHAR.

Graduate studies in this School are offered in—I. English Etymology; II. English Literature; III. American Literature; IV. Anglo-Saxon Prose and Verse; V. Advanced English, leading, according to prescribed groupings and range of studies, to the degree of Master of Arts or Doctor of Philosophy.

## Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

I. Herodotus and Thucydides.

II. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.

III. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.

II. The Tragic Poets.

III. Plato or Aristotle.

## Latin.

PROFESSOR MONTAGUE.

Three courses are offered, and selections are made from those works of the authors named below which are not usually read by undergraduates:

I. Plautus, Cicero, Tacitus.

II. Terence, Livy, Pliny the Younger.

III. Lucretius, Catullus, Seneca, Justinian (*Institutes*).

In connection with each course the following subjects will be studied:

1. Fragments of Early Latin; Latin Inscriptions (Allen).
2. Roman Versification (Platner).
3. The History of Roman Literature (Cruttwell).
4. Critical Study of Syntax (Peters; Roby).
5. Latin Composition (Translations from prose authors to be rendered without preparation into Latin).
6. Monthly Essays (*in Latin*) upon the authors and their Times.
7. Papers upon the peculiarities of authors and upon the obligations of modern to ancient writers, and abstracts of works assigned.
8. Review of Roman History; Study of Epochs.
9. Roman Antiquities (Dr. Smith; Rich).
10. Comparative Philology.
11. An exhaustive bibliography of each of the authors read.

For A. M., any one course; for Ph. D., any two courses.

### French Philosophy.

PROFESSOR LODGE.

I. (*a.*) A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.

Weber's Histoire de la Philosophie Européenne.

(*b.*) Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth century.

(*c.*) Mediæval French Philosophy.

II. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.

III. The Eighteenth Century; Voltaire; Condillac; The Encyclopédie.

IV. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy; Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

V. French Theory of the State; La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

Students taking courses in French speculative philosophy are advised to take also one or more of the courses in German philosophy offered by Dr. Sterrett.

VI. The History of Civilization in France, based upon the works of the standard historians of France, particularly Guizot, Michelet, and Taine. Students in this course must be able to read the French of Villehardouin, Joinville, Froissart, and Commines.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several Departments of the Government and of Congress.

### German and Continental History.

PROFESSOR SCHOENFELD.

I. Literary Awakening in Germany under the era of Frederick the Great; critical study of the literary centers, Leipzig, Zürich, Berlin; the literary revolution and the Illuminati; critical investigation of Klopstock's Odes and Wieland's Oberon.

II. History of the Second Classical "Blüteperiode" to the time of Schiller's and Goethe's intimate friendship (1795); detailed investigation into Lessing's Literaturbriefe, Laokoon, and Hamburgische Dramaturgie.

III. Literature of the Renaissance in Germany; influence of the Italian and French Renaissance upon the same (with special reference to Georg Voigt, Janssen, Burckhardt, L. Geiger).

IV. History of the Middle Ages from the time of the evolution of European States to the rise of the Hohenstaufen Emperors (the principal selections of the historical sources will be read and interpreted).

V. The Political Awakening in the Eighteenth Century; Causes of the French Revolution and the Napoleonic Empire.

VI. The Annihilation and Reconstruction of Prussia (H. von Treitschke); the Building up of the Modern German Empire (H. von Sybel).

The grouping of studies, the range of research, and other equivalent courses for the degrees, respectively, of Master of Arts and Doctor of Philosophy may be concerted with the professor in charge. The archives of the National Capital will be utilized for research work.

### Philosophy.

PROFESSOR STERRETT.

I. Aristotle's Ethics and Politics.
II. The Ethical Theories of Hobbs, Bentham, Mill, and Spencer.
III. The Ethics of Kant and Hegel's *Rechtsphilosophie*.
VI. Kant's Critique of the Pure Reason and his Critique of the Judgment.
V. Hegel's *Logik* and *Philosophie des Geistes*.
VI. The Philosophy of Religion, Hegel and Pfleiderer.
VII. The Philosophy of History. Under this students may also specialize, selecting formative epochs of history, *e. g.*—
  *a*. The Conversion of the Roman Empire to Christianity.
  *b*. The Rise and Formation of the Temporal Power of the Papacy.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Other equivalent courses may be concerted with the Professor in charge.

Notice is also called to the courses on French Philosophy given by Dr. Lodge, as supplemental to above courses, and to the course of papers given before the Society for Philosophical Inquiry, noted later on.

PROFESSOR HARRIS,

Commissioner United States Bureau of Education.

Dr. Harris will coöperate with Dr. Sterrett in carrying out additional courses.

1. Philosophy of History.
2. The History of Philosophy.

**Political Philosophy.**

PROFESSOR LODGE.

I. A comparative study of the political institutions of France, England, and the United States, based upon Guizot, Taine, Freeman, Boutmy, De Tocqueville, Bryce, C. E. Stevens, Burgess, and Maine.

II. A course in international law; its genetic idea; its history; its present status, and the specific contributions made by the Government of the United States to the improvement of the law of nations. The work is based upon Wheaton, Calvo, and Maine, as well as on the material furnished by the archives of the Department of State.

III. A course in political economy, dealing with the problems of socialism, coöperation, and distribution, based upon the chief French, English, Italian, and German authorities.

Students in all these courses must be able to read French fluently.

**Mathematics.**

PROFESSOR GORE.

For the degree of Master of Arts:

1. Higher Plane Curves; Modern Higher Algebra.
2. Mathematical reading: Carr's Synopsis of Pure Mathematics; Láska's Mathematische Formeln-Sammlung; Gore's Factors and Formulas.
3. Advanced Integral Calculus; Theory of Equations.

For the degree of Doctor of Philosophy:

1. Functions: General Theory of Functions, Harkness and Morley; Abelian Functions, Briot, Théorie des Fonctions Abéliennes.

PROFESSOR HODGKINS.

For the degree of Master of Arts:

I. Differential Equations.
Johnson's Differential Equations.

II. Determinants.
Hanus' Determinants. Scott's Determinants.

III. Quaternions.
Hardy's Quaternions. Kelland and Tait's Quaternions.

**Applied Mathematics.**

PROFESSOR FAVA.

I. *Geometry of position*, developed by projective methods, based on the works of von Staudt, Moebius, Steiner, Poncelet, etc. Courses 2 of the Department of Applied Mathematics of the Corcoran Scientific School and 1 to 5 of the Department of Mathematics of the same school (Descriptive Geometry, Mathematics up to and including Calculus), and a knowledge of the German and French languages are necessary preliminaries, but the knowledge of advanced mathematics, especially of the works of Chasles, Plücker, Salmon, Hesse, Cremona, and others, will greatly facilitate the study of geometry of position.

II. *Graphic Statics.*—This science, brought to a high degree of development by the work of Culmann, can be studied with either of two objects in view:

*a.* As a part of applied mechanics, when the aim is to develop new methods of calculating mechanical phenomena, such as elastic deflections, deformation of beams and elastic arcs, higher grade moments, properties of certain structures, etc.; also to apply graphostatical methods to the determination of stresses and calculation of parts of machinery. In this direction the works of Koechlin, W. Ritter, Du Bois, "Graphic Statics," Reuleaux, and parts of Culmann are recommended for study. The German and French languages and courses 2, 5, 6, 8, and eventually 10 (Descriptive Geometry, Applied Mechanics, etc.) of the Department of Applied Mathematics of the Corcoran Scientific School are necessary. This course is intended, besides, for students of Graphic Statics; also for civil and mechanical engineers who wish to acquire and perfect themselves in the knowledge of this science for the sake of applying modern graphical methods of computation in place of older analytical methods.

*b.* As a part of Analytical Mechanics, based on geometry of position, the works of W. Ritter and Culmann will be more especially studied.

The same prerequisite as for course *a*, with the addition of geometry of position, are necessary, and a thorough knowledge of advanced mathematics, especially determinants (Plücker's coördinates), etc., will be put in requisition.

III. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Church, Ritter, Rankine, Bresse, etc. A knowledge of the subjects taught in Courses 5, 6, 7, and 8 in mechanics of the Department of Applied Mathematics of the Corcoran Scientific School, as well as of German and French, are required.

Other courses in various branches of applied mathematics, based on the studies scheduled in the Department of Applied Mathematics of the Corcoran Scientific School, can be arranged for on request.

### Mathematical Physics.

PROFESSOR CHRISTIE.

Any three of the following courses will be given:

I. The Theory of Heat; Fourier, Clausius.

II. The Theory of the Potential, with applications to Electricity and Magnetism; Mathieu.

III. The Theory of Elasticity; Mathieu, Ibbetson.

IV. The Theory of Sound; Rayleigh.

V. Spherical Harmonics; Heine's "Kugelfunctionen."

VI. Quaternions; Hamilton's Elements.

### Solar Physics.

PROFESSOR BIGELOW,

Of the United States Weather Bureau.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Magnetism, Cosmical Electricity, and Magnetism, with their relations to Meteorology:

I. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots, and allied problems in solar physics, giving the grounds for the recent developments of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

II. Cosmical Electricity and Magnetism.—The two fields of force emanating from the sun, their mode of propagation through the æther, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

III. Terrestrial Magnetism.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instruments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

IV. Meteorology.—The thermo-dynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

### Theoretical Astronomy.

PROFESSOR FRISBY,
Of the United States Naval Observatory.

PROFESSOR WINLOCK,
Of the Smithsonian Institution.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

I. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers's Method, Abhandlungen, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

II. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's Theory Motûs. Books of reference, as above.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating

by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will first be taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, Mécanique Céleste. An abstract should here be made for the initiation of the student into this most extensive subject. Books of reference: Laplace, Mécanique Céleste; Lagrange, Mécanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, &c.

VI. General Spherical Astronomy. Chauvenet's or Brünow's Spherical Astronomy.

### Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

### Chemistry.

PROFESSOR MUNROE.

Schemes of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE,
Chief Chemist of the United States Geological Survey.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY,
Chief Chemist of the Department of Agriculture.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ,
Of the Bureau of Animal Industry.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artifical media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

## Zoölogy.

PROFESSOR GILL,
Honorary Curator in the Smithsonian Institution.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

## Anthropology.

DR. MASON,
Curator in the United States National Museum.

Candidates for the degree of Doctor of Philosophy in this subject are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in our best colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, and Lang are used as text, with readings in the journals of the four great Anthropological societies.

### Comparative Osteology and Artistic Anatomy.

PROFESSOR SHUTE.

The special studies in this branch comprise—

I. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations (especial attention to be given to the subject of Homologies); the Human Form and its Variations (the latter as affected by occupation, age, sex, disease, etc.).

II. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superfices of the Living Model as will enable the artist to understand the Statics and Kinetics of the Human Body; Methods of Studying the Proportions of the Human Body, etc.

### Meteorology.

PROFESSOR ABBE,
ASSOCIATE PROFESSOR MARVIN,
Of the United States Weather Bureau.

SPECIAL PHENOMENA AND CLIMATOLOGY.

1. Optical phenomena: (*a*) atmospheric refraction, reflection, and dispersion; (*b*) twilight; (*c*) scintillation; (*d*) blue light of the sky; (*e*) polarization of skylight; (*f*) haloes, glories, and coronas; (*g*) rainbows; (*h*) parhelia; (*i*) red and green suns.

2. Thermal phenomena: (*a*) selective absorption; (*b*) the bolometer and bolograms; (*c*) radiation from the dust and vapor; (*d*) convection and conduction of heat.

3. Acoustic phenomena: (*a*) refraction and reflection of sound; (*b*) fog signals; (*c*) thunder; (*d*) meteorite explosions.

4. Electrical phenomena: (*a*) atmospheric potential; (*b*) the theory of Exner and Trabert; (*c*) the lightning flash; (*d*) auroral light; (*e*) diffuse discharges on mountain tops and within snow-storm clouds.

5. Climate and geology: (*a*) morphology of the earth's surface; (*b*) the atmosphere and ocean; (*c*) climates and geological ages; (*d*) physiography of recent geologic times; (*e*) glacial epoch; lessons from the migrations of birds and the distribution of mammal fishes and plants.

6. Climate and vegetation: (*a*) phænology; (*b*) acclimatization; (*c*) geographic distribution of plants; (*d*) frosts and droughts; (*e*) electro-culture; (*f*) climate and crop statistics.

7. Climate and anthropology.

8. Climate and hygiene: (*a*) warming and ventilation; (*b*) humidity and sensible temperatures; (*c*) longevity, mortality, and disease.

9. Climate and engineering: (*a*) hydraulics of rivers; (*b*) prediction of floods; (*c*) wind pressure and strength of buildings; (*d*) wind and wind-mills; (*e*) solar motors; (*f*) wind and sailing vessels; (*g*) rainfall, evaporation, and irrigation; (*h*) flying and aerial navigation.

10. Climate and manufacturing industries: (*a*) *drying and curing*, operations in preserving fish, meat, fruit, and the manufacture of paper, salt, etc.; *bleaching*, in the manufacture of cotton and linen; *humidity*, in the spinning of silk, cotton; the harvesting of ice.

11. Atmospheric dust in relation to rain, geology, vegetation, hygiene, manufactures. Montgomery J. Storm's Steam-engine and Barnes's Cloudy Condensations.

12. The relation of the atmosphere to ordnance operations.

PRACTICAL METEOROLOGY.

1. Daily weather charts of all nations.

2. International charts of the northern hemisphere.

3. Methods of projection in cartography.

4. Influence of land and ocean on weather and climate.

5. Empirical rules as to the variability and constancy of weather and climate in general, and especially computations of the index of variability of climate by the law of errors.

6. Weather types and typical weather charts.

7. Predictions of daily weather by various methods, such as chance, persistency of current conditions, weather types, etc.

8. Special rules for predicting frost, cold waves, rain, snow, wind, etc.

9. Predictions for one, two, and three days.

10. Long-range predictions for seasons and climates.

11. Precise definition of climate by Hinrich's method, and long-range prediction of Hinrich's climatic exponent.

12. Climates in past geological ages.

13. Codification of empiric and rational rules for prediction.

14. Verification of predictions and the laws of chance involved therein.

THEORETICAL METEOROLOGY.

1. Insolation.
2. The absorption, conduction, and radiation of heat by the air and the earth.
3. The thermo-dynamics of the atmosphere.
4. Convective equilibrium.
5. The general circulation of a dry atmosphere on a rotating globe.
6. The influence of oceans and continents.
7. Local cyclones and anti-cyclones.
8. Atmospheric waves and tides.
9. Optical and electrical phenomena.

## Geology.

PROFESSOR MERRILL,
Curator in United States National Museum.

This School offers facilities for advanced study in Physical Geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course as planned presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitive chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

During the first year the student may devote his time largely, if necessary, to perfecting himself in methods, to general work in the laboratory and in the field, to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote him-

self to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be modified to suit individual cases in order that the student be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to the subjects of strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

### Civil Engineering.

PROFESSOR FAVA.

Students holding the degree of B. S. in Civil Engineering (Course II, Corcoran Scientific School) or its equivalent may obtain the degree of C. E. by pursuing studies in this Department for one year, as shown below:

The studies will embrace course 10 in the Department of Applied Mathematics of the Corcoran Scientific School, courses 17, 18, 13, 14, and 9 in the Department of Engineering of the same School (Modern tall buildings and use of iron in buildings; Construction of plants; Discussion of Engineering Topics and Inspection of actual work; Testing engineering materials), and course 9 in the Department of Chemistry of the Corcoran Scientific School (The Chemistry of Explosive Substances).

According to previous training of the student, some of the courses above may be omitted, and some courses embraced in the regular schedule of studies for the degree of B. S. in Civil Engineering (Course II) in the Corcoran Scientific School, to which students coming from other institutions might not have devoted the same amount of study as required in the Corcoran Scientific School, may be substituted therefor.

Courses 1 and 2 in the Department of Finance (Accounting of Persons, Corporations and Municipalities, and Elements of Business Law and Law of Contracts) and courses 2 and 3 in the Department of Fine Arts of the same School (The Five Orders and Applications to Massive Structures) must be taken unless previously studied. A course in political economy

(Corcoran Scientific School, Department of Economics, course —) is recommended. According to personal option, either Mechanical Engineering courses 6 and 7 of the Corcoran Scientific School, in a mechanical direction, or Engineering courses 15, 16, and 17 of the same school, in the line of Building Construction, are recommended; or special studies in some line of Engineering, such as Municipal Engineering, Railroad Maintenance, etc., etc., may be pursued. Practice in photography is advised. Owing to the large field for the employment of engineers in Spanish-American countries, the Spanish language is also recommended for study.

Besides these studies, a complex practical problem of a certain magnitude is given to the applicants for the degree of Civil Engineer immediately after they have obtained the degree of B. S. in Course II. This problem is to be solved during the following year as thesis work. The candidate is placed in the same position as the practising engineer; he has to collect his own data, make his surveys, and is allowed to draw his information from all available sources; but he is expected to furnish a comprehensive report and exhibits, drawings, estimates, etc., which will be complete, and throughout satisfactory as to contents as well as to form.

The subject selected is generally one of the great engineering problems of the day, either in the District of Columbia or outside. The subjects for graduation during the last four years have been: "A New Sewerage System for Washington City;" "A New Water Supply System for the District of Columbia;" "The Railroad Terminal Problem in Washington City;" "The Reconstruction of the Chesapeake and Ohio Canal with regard to protection from floods;" "The Utilization of the Water Power at the Great Falls of the Potomac River for the production and supply of pneumatic power for street railroads, elevators, ventilation, and industrial purposes for the city of Washington;" "The protection of Washington City from floods in the Potomac River;" "The reclaiming and improvement of the Rock Creek District in Washington City." After completion of his work each candidate is called upon to discuss and satisfactorily defend his thesis before a Board of Engineer Experts not connected with the University.

A special board of Engineers awards the Fava prize for valuable theses presented, which are—

## Electrical Engineering.

PROFESSOR LEWIS.

Students having obtained the degree of B. S. in Electrical Engineering (Course III) or its equivalent may receive the degree of Electrical Engineer upon satisfactorily completing a course of one year in the Graduate School, embracing the following studies :

1. Advanced laboratory work.
2. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.
3. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, estimate of cost, etc.

Concomitant studies in German and French, the Spanish language, higher mathematics, and advanced machine design, physics, and chemistry are recommended.

Advanced courses in various branches of physics, such as Electricity, Thermodynamics, theory of Light and Sound, and the like, are offered to candidates for the degree of M. S. and Ph. D.

## Architecture.

PROFESSOR BARRY.
PROFESSOR AMATEIS.

Students having obtained the degree of B. S. in Architecture (Course XII) or its equivalent from institutions of repute may receive the degree of Architect upon satisfactorily completing the following one year's course of study in the Graduate School :

Advanced studies in classical styles ;

Advanced studies in interior architecture and decoration ;

Advanced work in the construction of buildings.

Thesis to embody the results of the complete study of a structure of elaborate and ornamental character.

## Bibliography and Bibliology.

PROFESSOR BOLTON.

Professor BOLTON will exercise a general supervision over the bibliographic work done in this School and will advise students as to the best methods of work and the accepted methods of presentation of results.

During the past year Professor GORE lectured to the students of the School of Graduate Studies on Bibliography and Bibliographic Methods, while Professor GILL addressed the students on Methods of Cataloguing. During the forthcoming year arrangements will be made for addresses on special topics under this head.

Unusual opportunities are afforded students in this subject in the meetings of the Washington Library Association, which are held at stated intervals at the Columbian University.

## Doctorate Disputation.

The defense of the theses required of candidates for the Ph. D. degree was held publicly in the Hall of the University June 5, 1894. The candidates who presented themselves, the titles of the theses they defended, and the members of the boards of experts attacking the theses were as follows:

Candidate: EDWARD FARQUHAR.
Thesis: Elements of Unity in the Homeric Poems.
Experts: Prof. Dr. DANIEL QUINN.
The Rev. SAMUEL RAMSEY.
President J. C. WELLING.*

Candidate: WALTER SCOTT HARSHMAN.
Thesis: Investigation of the Motion of the Pericenter of Deimos.
Experts: Prof. ASAPH HALL, U. S. N.
Prof. WILLIAM HARKNESS, U. S. N.
Prof. J. R. EASTMAN, U. S. N.

Candidate: FRANK HALL KNOWLTON.
Thesis: The Flora of the Laramie Group and Allied Formations.
Experts: Prof. LESTER F. WARD.
Dr. CHARLES A. WHITE.
Prof. G. K. GILBERT.

* In the absence of Rev. Prof. CARL E. GRAMMER.

Candidate: CLAUDE AUGUSTUS OSCAR ROSELL.
Thesis: Investigation of the Properties of Ferric Acid.
Experts: Prof. ROBERT B. WARDER.
Dr. R. L. PACKARD.
Dr. WILLIAM M. MEW.

### Engineering Disputation.

The defense of the theses of the candidates for the C. E. degree was held publicly in the Hall of the University June 7, 1894. The candidates who presented themselves, the titles of the theses they defended, and the members of the boards of experts attacking the theses were as follows:

Candidate: GEORGE FRANKLIN PERRY.
Thesis: "The Protection of Washington City from Floods."
Experts: Capt. G. J. FIEBEGER, Corps of Engineers, U. S. A.
Civ. Eng. M. T. ENDICOTT, U. S. N.
GEO. W. LITTLEHALES, C. E.

Candidate: HAROLD DAVIS.
Thesis: "A Solution of the Railroad Problem in Washington City."
Experts: Hon. GEO. TRUESDELL, Commissioner D. C.
Royal Inspector G. TH. HOECH, C. E.
J. E. GREINER, C. E., B. & O. R. R. Co., Baltimore.

Candidate: WILLIAM I. DEMING.
Thesis: "The Improvement of the Rock Creek District, Washington, D. C."
Experts: Col. J. M. WILSON, Corps of Engineers, U. S. A.
Hon. J. FRANK ALDRICH, C. E., M. C.
C. C. J. NORRIS, C. E.

## CANDIDATES FOR DEGREES.

### For the Degree of Electrical Engineer.

| NAME. | RESIDENCE. | ADDRESS. |
|---|---|---|
| Theodore Henry Low<br>Graduate United States Naval Academy, 1891. | Massachusetts | U. S. Marine Barracks. |
| Hugh Pattison<br>Certificate Johns Hopkins University, 1892. | Maryland | 145 East Capitol St. |
| David Henry Sleem<br>A. B., 1879; M. D., 1887, Beyrout College.<br>M. D., New York University, 1889. | New York | Washington Loan and Trust Building. |
| Total 3 | | |

### For the Degree of Master of Science.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| George Estes Barton<br>B. S., Worcester Polytechnic Institute, 1891. | Chemistry | Massachusetts | Columbian University. |
| George Augustus Boeger<br>B. S., State University of Missouri, 1884.<br>C. E., State University of Missouri, 1884. | Theoretical Astronomy | Texas | 2145 L St., N.W. |
| Fredrich Ludwig Johannes Boettcher<br>B. S., Columbian University, 1894. | Chemistry | Virginia | 218 2d St., N. E. |

| | | | |
|---|---|---|---|
| William Asbury Case.....<br>B. Sc., St. John's College, 1894. | Chemistry ..... | Maryland ..... | 812 S St., N.W. |
| George Vose Chandler. .....<br>B. S., Columbian University, 1893. | Electricity ..... | Pennsylvania..... | 213 C St., S. E. |
| Louise Connolly ..... .....<br>B. S., Columbian University, 1888. | Mineralogy... ... | Dist. of Columbia.. | 1443 Chapin St., N.W. |
| Elmer Selah Farwell .....<br>C. E., Rensselaer Polytechnic Institute, 1874. | Advanced Calculus..... | Illinois..... | 1219 I St., N.W. |
| Revere Randolph Gurley.....<br>M. D., Columbian University, 1884. | Zoölogy..... ... . | Virginia ..... | 71 N. Y. Ave., N. E. |
| Anna Sarah Hazelton.....<br>B. S., Columbian University, 1892. | Mathematics..... | Dist. of Columbia.. | 1215 9th St., N.W. |
| Horace Mann.....<br>B. S., Columbian University, 1893. | Economics.. ..... | Iowa..... | 1613 Fla. Ave., N.W. |
| Stephen C. Miller..... .....<br>M. D., Columbian University, 1884.<br>Phar. D., Howard University, 1888. | Chemistry ... ..... | Minnesota .... ... | 1324 N. Y. Ave., N.W. |
| Jesse Pawling, Jr.....<br>A. B., 1888; A. M., 1893, Philadelphia High School.<br>B. S., Cornell University, 1893. | Mathematics ..... | Pennsylvania..... | U. S. Coast and Geodetic Survey. |
| Augusta M. Pettigrew.... ..... ...<br>M. D., Columbian University, 1891. | German Literature..... | Dist. of Columbia.. | 224 Md. Ave., N. E. |
| George Baden Pfeiffer. ..... . .<br>B. Sc , Virginia Agricultural and Mechanical College, 1886. | Chemistry ..... | Maryland ..... | 501 Stanton Pl., N. E. |
| Adelaide Smith.....<br>S. B., Wellesley College, 1893. | Mathematics ..... | Iowa..... | Forest Glen, Maryland. |
| Cabell Whitehead..... ....<br>B. M., Lehigh University, 1885. | Chemistry ..... | Idaho..... | 1114 N. H. Ave., N.W. |
| Total..... 16 | | | |

**For the Degree of Master of Arts.**

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Jonas Emil Blomén.....<br>Ph. D., University of Upsala, 1884. | Continental History.... | New York.... .... | 1639 10th St., N.W. |
| Joseph Herbert Ford.....<br>B. S., Columbian University, 1893. | Ethics..... | Dist. of Columbia... | 314 2d St., S. E. |
| Edmund Payne Halley, Jr..... .....<br>A. B., Kentucky University, 1891. | English..... | Kentucky..... | 716 12th St., N.W. |
| Mary McPherson.....<br>A. B., Wellesley College, 1893. | Economics..... | Dist. of Columbia.. | 1227 I St., N.W. |
| Edwin Barnes Niver.....<br>A. B., Brown University, 1893.<br>B. D., Episcopal Theological School, Cambridge, 1892. | Ethics..... | Maryland..... | 1332 R St., N.W. |
| Marathon Montrose Ramsey.....<br>B. S., Columbian University, 1894. | Philology ..... | West Virginia..... | 2120 H St., N.W. |
| John Merriam Reynolds.....<br>B. E., 1867; M. E., 1869, Pennsylvania State Normal School. | Ethics..... | Pennsylvania..... | 1510 H St., N.W. |
| William Tayloe Snyder.....<br>LL.B., 1877; LL.M., 1879, Columbian University. | Ethics..... | Dist. of Columbia.. | 1317 19th St., N.W. |
| Total..... ..... 8 | | | |

**For the Degree of Doctor in Philosophy.**

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Oliver Lanard Fassig.....<br>B. S., Ohio State University, 1882. | Major, Meteorology; Minors, Solar Physics, Laboratory Physics. | Ohio..... ..... | U. S. Weather Bureau. |
| Max Georgii.....<br>LL.B., LL.M., National University.<br>Staats Examen Polytechnic School, Stuttgart. | Major, Modern History; Minors, History of Law, German Literature. | Minnesota ..... | 606 F St., N.W. |
| Revere Randolph Gurley.....<br>M. D., Columbian University, 1884. | Major, Zoölogy; Minors, Botany, Geology. | Virginia ..... | 71 N. Y. Ave., N. E. |
| John Scott Johnson.....<br>B. S., 1893; A. M., 1894, Columbian University. | Major, Philosophy; Minors, Economics, History. | Texas ..... | 1460 Corcoran St., N.W. |
| William Hamilton .....<br>A. B., Moravian College, Pennsylvania, 1891.<br>A. M., Columbian University, 1894. | Major, English; Minors, German, French. | Pennsylvania..... | 1732 K St., N.W. |
| George Wesley Hamner .....<br>A. B., 1882; A. M., 1885, Hiawassee College.<br>LL.B., University of Alabama, 1885.<br>LL.M., Georgetown University, 1886. | Major, History; Minors, Political Economy, Anthropology. | Alabama..... | 507 4th St., N.W. |
| William Perry Hay.....<br>B. S., 1891; M. S., 1892, Butler University. | Major, Zoölogy; Minors, Geology, Botany. | Dist. of Columbia.. | 478 O St., N.W. |
| Albert Mayer Hilliker.....<br>B. D., Seabury Divinity School, 1890. | Major, Philosophy; Minors, History, Ethics. | Minnesota ..... | 230 12th St., S.W. |

**For the Degree of Doctor in Philosophy—Continued.**

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Edward Clark Hudson..... A. B., 1884; A. M., 1894, Hiawassee College. A. M., Columbian University, 1894. | Major, Greek; Minors, Latin, French. | Texas ..... | Maltby House. |
| James Stephen Lemon..... B. A., 1864; M. A., 1867, Wesleyan University, Middletown, Connecticut. | Major, Psycho-physics; Minors, Philosophy, Climatology. | Massachusetts..... | 1910 Vt. Ave., N.W. |
| Henry Rogers Pyne..... A. B., 1893; A. M., 1894, Columbian University. | Major, Greek; Minors, Latin, French. | Maine ..... | 1702 S St., N.W. |
| Total..... 11 | | | |

Total..... 38

# UNIVERSITY LECTURES.

**University Committee on Lectures.**

| | |
|---|---|
| Professor J. H. GORE, *Chairman.* | Professor J. MACB. STERRETT. |
| Professor S. M. SHUTE. | Professor WILLIAM P. CARR. |
| Professor L. D. LODGE. | Professor H. C. THOMPSON. |
| Professor W. S. COX. | Mr. CHAPIN BROWN. |

*The Treasurer of the University.*

The lectures given in University Hall, other than those given to the students in law, are open to all students in the University, who are qualified to follow them, without extra fee. During the session of 1894–'95 the following lectures have been delivered:

**University Lectures.**

The Reverend Randolph H. McKim, D. D.—Luther and the Reformation.

Major J. W. Powell, LL.D.—The Aborigines of North America.

Professor Henry E. Davis, LL.M.—The Majesty of the Law.

Professor Otis T. Mason, Ph. D.—History and Natural Science.

Professor Simon Newcomb, LL D.—Socialism and the Labor Question.

Professor William Ordway Partridge.—Art for the People.

Mr. Gardiner G. Hubbard, LL.D.—Pictorial Life of Napoleon.

Professor D. Kerfoot Shute, M. D.—Protoplasm, the Cell, and the Cell Theory.

Mr. Justice Brewer, LL.D.—Woman in Court.

Hon. W. T. Harris, LL.D.—Four Lectures on the Philosophy of Art and Literature.

Professor Lee Davis Lodge, Ph. D.—Literature of the XVIIth Century in France: I, its Genesis; II, its Essential Characteristics.

Professor Hermann Schönfeld, Ph. D.—The Beginnings of the Second Classical Period in German Literature.

Professor Edward Farquhar, Ph. D.—The Transition Period of English Literature.

Professor J. H. Gore, Ph. D.—Belgian Life and Activities.

Mr. Gardiner G. Hubbard, LL.D.—Asia.

J. Ormond Wilson, Esq.—Africa.

**Ten Lectures on the History of Chemistry by Professor H. Carrington Bolton, Ph. D., Non-resident Lecturer.**

Illustrated by 250 lantern views.

I. Chemical Arts in Bible Times.
II. Theoretical Views in Ancient Times.
III. The Folly and the Wisdom of Alchemy.
IV. The Growth and Decline of Alchemy.
V. Paracelsus and the Iatro-Chemists.
VI. The Era of Phlogiston.
VII. The Development of Pneumatic Chemistry.
VIII. Lavoisier and the Reformation of Chemistry.
IX. The Era of Quantitative Chemistry.
X. Progress of Chemistry in Recent Times.

**Lectures on Buddhism by Professor Thomas W. Rhys Davids, Ph. D., LL.D., of University College, London.**

I. Life of Gotama, the Buddha.
II. Essence of Buddhism.
III. Buddhist Order and Later Developments of Buddhism.
IV. Buddhist Bible.

**Addresses before the Society for Philosophical Inquiry.**

1. Dr. Paul Carus.—The Problem of Evil.
2. Dr. William T. Harris.—The Five Phases of Thinking.
3. Dr. Edward Farquhar.—Early and Middle Phases of Philosophical Realism.
4. Rev. Frank Sewall.—Swedenborg's Philosophy in Relation to Aristotle's.
5. Dr. Lee Davis Lodge.—The Philosophy of Malebranche.
6. Dr. J. MacBride Sterrett.—Sensational Idealism of Locke, Berkeley, and Hume.
7. Mr. E. S. Steele.—Kant's Critique of the Pure Reason.
8. Rev. A. M. Hilliker.—Kant's Metaphysics of Ethics.
9. Rev. Professor Frank H. Bigelow.—Fichte's Ideal Realism.
10. Dr. William T. Harris.—Exposition of Hegel's Logic.
11. Major J. W. Powell.—The Four Stages of Thought.
12. Dr. Lester F. Ward.—The Philosophy of A. Comte.
13. Mr. Myrick H. Doolittle.—Scientific Realism.

14. Mrs. Dr. John W. Hoyt.—The Analysis of a Present State of Mind.
15. Mrs. Caroline E. Dall.—New England Transcendentalism.
16. Rev. Dr. E. A. Pace.—The Philosophy of St. Thomas.
17. Rev. J. S. Lemon.—The Metaphysics of Theology.
18. Professor William Ordway Partridge.—The Philosophy of Art.
19. Mr. Clifford Howard.—False Biological Theories.

**Lectures and Conferences in the School of Applied Ethics.**

Professor Felix Adler, New York (Dean of the School of Applied Ethics).—The Scope and Aims of the School of Applied Ethics.

Professor Felix Adler.—The True Relation between Ethics and Economics.

Professor Woodrow Wilson, Princeton University.—The Nature of the State and its Relation to Progress. Followed by a conference, Justice Harlan, of the Supreme Court, presiding.

Professor Woodrow Wilson.—Liberty, Expediency, and Morality in the Democratic State.

Professor Felix Adler.—A Criticism of Socialism from the Ethical Point of View. Followed by a conference, Senator Hawley, of Connecticut, presiding.

Professor Felix Adler.—The Philosophy of Organized Labor. Followed by a conference, Hon. Carroll D. Wright, Commissioner of Labor, presiding.

Professor Felix Adler.—Moral Ideals as an Aid in the Solution of the Labor Question. Followed by a conference, Professor J. MacBride Sterrett, Columbian University, presiding.

Professor H. C. Adams, University of Michigan.—Evolution of the Labor and the Monopoly Problems. Followed by a conference, Professor Sidney Sherwood, Johns Hopkins University, presiding.

Professor H. C. Adams.—Socialism as a Social Theory. Followed by a conference, Professor Lester F. Ward, National Museum, presiding.

Professor H. C. Adams.—Proposed Solutions of the Industrial Problem. Followed by a conference, Professor L. D. Lodge, Columbian University, presiding.

Hon. Carroll D. Wright, Commissioner of Labor.—The Function of Government in the Solution of the Labor Problem.

Professor E. J. James, University of Pennsylvania.—The Duties of Citizenship. Followed by a conference, Dr. John M. Gregory, Chairman of the Civic Center, presiding.

Dr. E. R. L. Gould, Johns Hopkins University.—The Liquor Problem; its Scientific Treatment. Followed by a conference, Dr. C. A. Crampton, Chemist of Internal Revenue Department, presiding.

THE STRUGGLE OF THE MODERN CHURCH WITH THE LABOR QUESTION.

Mr. John Graham Brooks, Cambridge, Massachusetts.—The Roman Catholic Church and the Labor Question. Followed by a conference, Dr. Thomas O'Gorman, of the Catholic University, presiding.

Mr. John Graham Brooks.—The Protestant Church and the Labor Question. Followed by a conference, Rev. Stephen M. Newman, presiding.

Mr. William M. Salter, Philadelphia.—Moral Forces in Dealing with the Labor Problem. Followed by a conference, Professor Otis T. Mason, National Museum, presiding.

CONFERENCES ON THE RELATION OF EDUCATION TO SOCIAL PROBLEMS.

Conference: The Relation of the University to the Labor Question, Right Rev. Bishop Keane, Rector Catholic University, presiding.

Conference: The Relation of Industrial Schools to the Labor Question, James MacAlister, President Drexel Institute, Philadelphia, presiding.

Conference: The Relation of the Public Schools to the Industrial Problem, Samuel T. Dutton, Superintendent Public Schools, Brookline, Massachusetts, presiding.

LECTURES BEFORE THE NATIONAL GEOGRAPHIC SOCIETY.

March 18. Washington to Pittsburg and to Niagara Falls: Across the Appalachians, Dr. David T. Day; Side Trip to Niagara Falls, Mr. G. K. Gilbert.

March 22. Pittsburg to Yellowstone National Park: Pittsburg to St. Paul, through the Oil and Gas Regions, Professor Edward Orton; St. Paul to Yellowstone National Park, Mr. Walter H. Weed.

BEFORE THE GEOLOGICAL SOCIETY OF WASHINGTON.

Presidential address by Mr. C. D. Walcott, on the United States Geological Survey.

BEFORE THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON.

Presidential address by Dr. Otis T. Mason, on the Similarities in Culture; their Origins, Dispersions, and Varieties.

## DEGREES CONFERRED IN 1894.

HONORARY.

### Doctor of Laws.

| Name. | Residence. |
|---|---|
| Theodore Nicholas Gill,<br>A. M., 1865, Columbian University.<br>M. D., 1866, Columbian University.<br>Ph. D., 1870, Columbian University. | District of Columbia. |

### Doctors of Divinity.

| Name. | Residence. |
|---|---|
| Chastain C. Meador,<br>A. B., 1857, Columbian University.<br>A. M., 1860, Columbian University. | District of Columbia. |
| Andrew Jackson Spears Thomas,<br>Graduate Furman University, 1875.<br>Graduate Southern Baptist Theological Seminary, 1879.<br>Editor "The Baptist Courier." | South Carolina. |

### Doctor of Humane Letters.

| Name. | Residence. |
|---|---|
| Harry C. Davis,<br>A. B., 1878, Columbian University.<br>A. M. 1881, Columbian University. | Pennsylvania. |

### Doctor of Science.

| Name. | Residence. |
|---|---|
| James Seth,<br>M. A., 1881, University of Edinburgh. | Rhode Island. |

## DEGREES CONFERRED IN COURSE.

### Doctors of Philosophy.

| Name. | Residence. |
|---|---|
| Edward Farquhar, | District of Columbia. |
| Walter Scott Harshman,<br>M. S., 1892, Columbian University. | Ohio. |
| Frank Hall Knowlton,<br>B. S., 1884, Middlebury.<br>M. S., 1887, Middlebury. | Maryland. |
| Charles Edward Munroe,<br>S. B., 1871, Harvard University. | Massachusetts. |
| Claude Augustus Oscar Rosell,<br>A. M., 1881, University of Pennsylvania,<br>LL.B., 1886, Georgetown University. | Pennsylvania. |

### Masters of Science.

| Name. | Residence. |
|---|---|
| Jessie Claire McDonald,<br>B. S., 1888, Wellesley College. | District of Columbia. |
| Herbert Louis Rice,<br>B. S., 1893, Columbian University. | Illinois. |
| Oscar John Schneider,<br>B. S., 1893, Columbian University. | Wisconsin. |

### Masters of Arts.

| Name. | Residence. |
|---|---|
| Edmund Clark Hudson,<br>A. B., 1882, Hiawassee College. | Texas. |
| E. Hilton Jackson,<br>A. B. 1891, Columbian University.<br>LL.B., 1892, Columbian University.<br>LL.M., 1893, Columbian University. | Virginia. |
| John Scott Johnson,<br>B. S., 1893. Columbian University. | Texas. |
| William Hamilton,<br>A. B., 1891, Moravian College, Bethlehem. | Pennsylvania. |
| Anna Madeleine Letterman,<br>1892, Normal College, City of New York. | District of Columbia. |
| Frank Bowers Littell,<br>Ph. B., 1891, Wesleyan, Middletown. | Pennsylvania. |

| Name. | Residence. |
|---|---|
| Henry Rogers Pyne,<br>A. B., 1893, Columbian University. | Maine. |
| Frances Estelle Throckmorton,<br>A. B., 1893, Columbian University. | District of Columbia. |

**Doctors of Medicine.**

| Name. | Residence. |
|---|---|
| Walter K. Beatty, | District of Columbia. |
| Archie W. Boswell, | District of Columbia. |
| Mary A. Brosius, | Pennsylvania. |
| William T. Burch, | District of Columbia. |
| Edgar F. Conant, | Maine. |
| Alice S. Crush, | Virginia. |
| John M. Cunningham, | Illinois. |
| Edward Y. Davidson, | Virginia. |
| Joseph C. Davison, | New Jersey. |
| Middleton S. Elliott, | South Carolina. |
| Rudolf H. von Ezdorf, | Pennsylvania. |
| Orange C. Gilliland, | Illinois. |
| Thomas A. Griffin, | Virginia. |
| John W. Gue, | Oregon. |
| Francis R. Hagner, | District of Columbia. |
| Charles J. Hopkins, | District of Columbia. |
| Virgil B. Jackson, | Virginia. |
| Sidney L. Johnson, | District of Columbia. |
| Carolyn I. Keife, | Massachusetts. |
| Alice K. Koogle, B. S., | Ohio. |
| Sherman D. Maynard, | New York. |
| Eaton K. McNeil, | Tennessee. |
| John W. Morgan, | District of Columbia. |
| Herbert W. Porter, | Connecticut. |
| Margaret S. Potter, | Pennsylvania. |
| Joseph O. Reed, | Massachusetts. |
| John L. Reid, D. D. S., | District of Columbia. |
| Lemuel J. Stanton, | Iowa. |
| Mary C. Stanton, | Iowa. |
| William S. Washburn, | New York. |
| Richard Washington, | District of Columbia. |
| Gottlieb Wehrle, B. S., | Wisconsin. |
| Gustavus Werber, | South Carolina. |

### Doctors of Dental Surgery.

| Name. | Residence. |
|---|---|
| Chester H. Beatty, | District of Columbia. |
| John H. Galloway, | Iowa. |
| Walter A. Low, | Virginia. |
| William A. Lyon, | Kansas. |
| Herbert MacNamee, | New York. |
| Frederick W. Parker, | New York. |
| Charles S. Rice, M. D., | Pennsylvania. |
| T. Guy Songster, | District of Columbia. |

### Masters of Law.

| Name. | Residence. |
|---|---|
| A. A. Adams,<br>LL.B., Georgetown University, 1889.<br>LL.M., Georgetown University, 1890. | Tennessee. |
| Perry Allen,<br>LL.B., Columbian University, 1894. | Massachusetts. |
| J. Walter Barber,<br>LL.B., Columbian University, 1893. | Indiana. |
| Walter A. Bethel,<br>Graduate U. S. Military Academy, 1889.<br>B. L., Atlanta Law School, 1892. | Ohio. |
| J. C. Bowen,<br>LL.B., Columbian University, 1893. | Michigan. |
| James W. Byler,<br>LL.B., Columbian University, 1893. | Missouri. |
| Elias N. Butts,<br>LL.B., Columbian University, 1892. | Missouri. |
| U. Schuyler Catlett,<br>LL.B., Columbian University, 1893. | Tennessee. |
| A. V. Cushman,<br>LL.B., Columbian University, 1893. | Massachusetts. |
| George F. Daggett,<br>LL.B., Columbian University, 1893. | Maine. |
| Frank E. Dennett,<br>A. B., Bowdoin College, 1890.<br>LL.B., Columbian University, 1893. | Maine. |
| Rossa T. Downing,<br>LL.B., Georgetown University, 1889.<br>LL.M., Georgetown University, 1890. | District of Columbia. |

| Name. | Residence. |
|---|---|
| W. C. Eldridge,<br>LL.B., National University.<br>LL.M., National University. | New York. |
| J. William Ellis,<br>Ph. B., Cornell, 1890.<br>LL.B., Columbian University, 1893. | New York. |
| F. De Courcy Faust,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| James A. Finch,<br>LL.B., Columbian University, 1893. | New York. |
| Albert F. Flint,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Charles L. Frailey,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1893. | Massachusetts. |
| Paul Trapier Gadsden,<br>A. M., University of the South, 1891.<br>LL.B., Columbian University, 1893. | South Carolina. |
| W. H. Gallinger,<br>LL.B., Georgetown University, 1893. | New Hampshire. |
| Horace D. Goodale,<br>LL.B., Columbian University, 1893. | New York. |
| Milton Le Roy Gough,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| William M. Hardcastle,<br>LL.B., Columbian University, 1892. | Maryland. |
| William E. Harvey,<br>LL.B., Columbian University, 1893. | Missouri. |
| Henry Hawxhurst,<br>LL.B., Columbian University, 1892. | Virginia. |
| Charles E. Howe,<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| Kepler Hoyt,<br>A. B., University of Denver, 1891.<br>LL.B., Columbian University, 1893. | Wyoming. |
| Malcolm Hufty,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| A. L. Jackson,<br>LL.B., Columbian University, 1893. | Texas. |

| Name. | Residence. |
|---|---|
| Sydney R. Jacobs,<br>LL.B., Columbian University, 1893. | Wisconsin. |
| J. Burr Johnson,<br>LL.B., Columbian University, 1893. | Maryland. |
| Messmore Kendall,<br>LL.B., Columbian University, 1893. | Colorado. |
| Conrad Krebs,<br>LL.B., Georgetown University, 1892. | District of Columbia. |
| J. T. Macey,<br>LL.B., Columbian University, 1893. | New York. |
| Walker D. Maclean,<br>A. B., Columbian University, 1891.<br>LL.B., Columbian University, 1893. | Illinois. |
| M. A. Martinez,<br>LL.B., Univ. of Lausanne, Switzerland, 1885. | Chile. |
| J. G. Meyers, Jr.,<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Lawrence O. Murray,<br>Graduate Metropolis Law School, N. Y. city.<br>LL.B., Regents' University, N. Y. State, 1893. | New York. |
| Fred. C. O'Connell,<br>LL.B., Columbian University, 1893. | Vermont. |
| Howard S. Reeside,<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| Louis A. Rosafy,<br>LL.B., Columbian University, 1893. | North Carolina. |
| Morris E. Sabin,<br>LL.B., Columbian University, 1893. | Wisconsin. |
| Fountain F. Sams,<br>LL.B., Columbian University, 1893. | Illinois. |
| George H. Shields, Jr.,<br>A. B., Princeton, 1891.<br>LL.B., Columbian University, 1893. | Missouri. |
| Henry Gordon Strong,<br>LL.B., Columbian University, 1890. | Wisconsin. |
| Bernard H. Taylor,<br>LL.B., Columbian University, 1893. | Illinois. |
| Herbert J. Taylor,<br>B. L., Washington and Lee University. | Virginia. |

| Name. | Residence. |
|---|---|
| Corcoran Thom,<br>LL.B., Columbian University, 1893. | Maryland. |
| J. H. Thomas,<br>LL.B., Columbian University, 1893. | Missouri. |
| Addison C. Townsend,<br>LL.B., Columbian University, 1893. | Nebraska. |
| Ralph R. Upton,<br>A. B., Yale University, 1892.<br>LL.B., Columbian University, 1893. | District of Columbia. |
| Mark A. Watson,<br>LL.B., Columbian University, 1893. | California. |
| Harry Weber,<br>LL.B., Columbian University, 1893. | Illinois. |
| George Francis Williams,<br>LL.M., Georgetown University, 1889. | District of Columbia. |
| A. L. Wood,<br>LL.B., Columbian University, 1893. | New Jersey. |
| Edward A. Wright,<br>C. E., Lehigh University, 1889.<br>LL.B., Columbian University, 1893. | Pennsylvania. |
| Fred. A. Wright,<br>A. B., Amherst College, 1884.<br>LL.B., Columbian University, 1893. | Massachusetts. |
| Herbert Wright,<br>M. E., Lehigh University, 1890.<br>LL.B., Columbian University, 1893. | Pennsylvania. |

**Bachelors of Law.**

| Name. | Residence. |
|---|---|
| Fred. Achenbach, | Missouri. |
| Edgar Allan, Jr., | Virginia. |
| Perry Allen, | Massachusetts. |
| Charles C. Baldwin, | Florida. |
| Franklin E. Barrett, | District of Columbia. |
| William W. Bedford, | California. |
| Edwin S. Bethel, | Illinois. |
| W. R. Blackford,<br>B. S., Columbian University, 1892. | District of Columbia. |
| S. Hazen Bond, | District of Columbia. |

| Name. | Residence. |
|---|---|
| Joseph A. Burkart, | District of Columbia. |
| Malcolm Argyle Coles, | Virginia. |
| A. B., Richmond College, 1888. | |
| P. E. Cox, | Tennessee. |
| Percy S. Crowe, | Indiana. |
| Allen A. Davis, | Tennessee. |
| A. B., S. W. B. University, 1891. | |
| Murray M. Davis, | Virginia. |
| R. A. Davisson, | Illinois. |
| Fred. Dennett, | North Dakota. |
| Frederick W. Denniston, | Pennsylvania. |
| Harris Dickson, | Mississippi. |
| Victor B. Dolliver, | Iowa. |
| A. B., Cornell, 1889. | |
| Frederic S. Doyle, | Pennsylvania. |
| C. W. Draper, | Montana. |
| J. Q. Eaton. | District of Columbia. |
| A. B., Dartmouth College, 1893. | |
| J. W. Ellis, | Oregon. |
| Selden M. Ely, | Virginia. |
| M. E., S. N. School, Indiana, Pa., 1888. | |
| Paul Finckel, | District of Columbia. |
| Keith Forrest, | District of Columbia. |
| Seinosuké Fukuda, | Japan. |
| A. M. Fuller, | Pennsylvania. |
| Graduate U. S. Military Academy, 1876. | |
| James McIlvaine Gray, | Nebraska. |
| Thomas Gresham, | North Carolina. |
| Harry C. Grove, | West Virginia. |
| H. M. Gunderson, | District of Columbia. |
| J. Fossett Hays, | Ohio. |
| A. B., Wooster University, 1879. | |
| Walter R. Hensey, | District of Columbia. |
| A. H. Hiller, | Michigan. |
| Ph. B., Hillsdale College, Michigan, 1889. | |
| Ph. M., Hillsdale College, Michigan, 1893. | |
| Frank H. Hitchcock, | Massachusetts. |
| A. B., Harvard, 1891. | |
| Francis C. Huebner, | Ohio. |
| J. S. Jenkins, | Indian Territory. |

| Name. | Residence. |
|---|---|
| Guy Hamilton Johnson, | District of Columbia. |
| T. C. Kelly, | Pennsylvania. |
| Thomas Kerl, | District of Columbia. |
| A. B., University of Michigan, 1891. | |
| Frank Kyselka, | Michigan. |
| C. H. Lauchheimer, | Maryland. |
| Graduate U. S. Naval Academy, 1881. | |
| Edward T. Lee, | Connecticut. |
| A. B., Harvard, 1886. | |
| Reeve Lewis, | District of Columbia. |
| Harris Lindsley, | District of Columbia. |
| James Joseph McEvilly, | Montana. |
| L. M. Marble, | District of Columbia. |
| B. S., Cornell University, 1892. | |
| Marcus B. May, | District of Columbia. |
| William C. Mayo, | Virginia. |
| Lloyd T. Meeds, | District of Columbia. |
| Edgar C. Molby, | Michigan. |
| Gales P. Moore, | District of Columbia. |
| L. D. Manigault Mowry, | South Carolina. |
| H. L. Muldrow, Jr., | Mississippi. |
| H. Beach Needham, | Illinois. |
| John O'Connell, | Wisconsin. |
| James A. Oldfield, | West Virginia. |
| R. H. Orr, | Delaware. |
| F. R. Parks, | District of Columbia. |
| B. S., Columbian University, 1883. | |
| Sterling Parks, | Ohio. |
| A. B., University of Michigan, 1888. | |
| E. H. Parry, | Connecticut. |
| Seth V. Peck, | Iowa. |
| U. G. Perry, | Pennsylvania. |
| Robert L. Russell, | Georgia. |
| Graduate U. S. Naval Academy, 1885. | |
| Walter H. Ryland, | Virginia. |
| A. B., Richmond College, 1891. | |
| Harold N. Saxton, | New York. |
| H. C. Sheridan, | District of Columbia. |
| Albert D. Spangler, | Pennsylvania. |
| Luther F. Speer, | Pennsylvania. |

| Name. | Residence. |
|---|---|
| Arle W. Starck, | Arkansas. |
| Carl A. Starck, | Arkansas. |
| J. Walker Stuart, | South Carolina. |
| Harry C. Surguy, | Ohio. |
| Albert Vincent Taylor, | Ohio. |
| Seth Elliott Tracy, | Texas. |
| H. J. Van Der Beek, | New York. |
| E. W. Van Dyke, | District of Columbia. |
| John Chalmers Wilson, | Maryland. |
| Charles Hewitt Wright, | Massachusetts. |
| A. B., Williams College, 1892. | |

**Bachelors of Arts.**

| Name. | Residence. |
|---|---|
| George Luff Edmunds, | District of Columbia. |
| S. Carroll Ford, | District of Columbia. |
| William W. Grier, | District of Columbia. |
| H. L. Mitchell, | District of Columbia. |
| Arthur L. Wilson, | West Virginia. |

**Bachelors of Science.**

| Name. | Residence. |
|---|---|
| Frederick L. J. Boettcher, | Virginia. |
| Juliet Maud Duvall, | District of Columbia. |
| Mary Virginia Fenwick, | District of Columbia. |
| Hester E. McNelly, | District of Columbia. |
| Horace Mann, | District of Columbia. |
| Marathon Montrose Ramsey, | West Virginia. |

**Civil Engineers.**

| Name. | Residence. |
|---|---|
| Harold Davis, | Ohio. |
| William I. Deming, | District of Columbia. |
| George Franklin Perry, | District of Columbia. |

Total..... 215

## Recapitulation.

| | |
|---|---|
| Students in the College | 87 |
| Students of Medicine | 167 |
| Students of Dentistry | 63 |
| Students of Law | 331 |
| Students in the Scientific School | 251 |
| Students in the Graduate School | 38 |
| Aggregate | 937 |
| Students in the Preparatory School | 62 |
| Total | 999 |

## Geographical Distribution of University Students.

| | | | | | |
|---|---|---|---|---|---|
| Alabama | 6 | Michigan | 17 | Tennessee | 16 |
| Arkansas | 3 | Minnesota | 9 | Texas | 20 |
| California | 13 | Mississippi | 12 | Utah | 1 |
| Connecticut | 7 | Missouri | 12 | Vermont | 8 |
| Delaware | 5 | Montana | 2 | Virginia | 70 |
| Dist. of Columbia | 312 | Nebraska | 6 | Washington | 2 |
| Florida | 2 | Nevada | 2 | West Virginia | 14 |
| Georgia | 25 | New Hampshire | 5 | Wisconsin | 7 |
| Idaho | 2 | New Jersey | 8 | | |
| Illinois | 26 | New York | 66 | Armenia | 1 |
| Indiana | 9 | North Carolina | 18 | Brazil | 1 |
| Iowa | 15 | North Dakota | 3 | Canada | 1 |
| Kansas | 10 | Ohio | 38 | Chile | 2 |
| Kentucky | 11 | Oregon | 1 | England | 2 |
| Louisiana | 10 | Pennsylvania | 47 | U. S. of Colombia | 1 |
| Maine | 11 | Rhode Island | 2 | | |
| Maryland | 46 | South Carolina | 8 | Total | 937 |
| Massachusetts | 21 | South Dakota | 1 | | |

PENNSYLVANIA

# CATALOGUE

OF

# THE COLUMBIAN UNIVERSITY,

WASHINGTON, D. C.,

1895-'96.

---

FOUNDED 1821.

# CALENDAR FOR 1895.

### SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | -- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| -- | -- | -- | -- | -- | -- | -- |

### DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1896.

### JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| -- | -- | -- | -- | -- | -- | -- |

### MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

### JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

### SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### OCTOBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

### NOVEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### DECEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

# CALENDAR FOR 1897.

### JANUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | -- | -- | -- | -- | -- | -- |

### FEBRUARY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MARCH.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### APRIL.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | -- |
| -- | -- | -- | -- | -- | -- | -- |

### MAY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | -- | -- | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | -- | -- | -- | -- | -- |

### JUNE.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

### JULY.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| -- | -- | -- | -- | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| -- | -- | -- | -- | -- | -- | -- |

### AUGUST.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- |

# CATALOGUE

OF

# THE COLUMBIAN UNIVERSITY

WASHINGTON, D. C.,

1895-'96.

---

JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON
1896.

## KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a center.

A—The main building of the University, southeast corner 15th and H streets, N. W.
B—The Columbian Academy.
C C C C—Parcels of ground belonging to the University.
D—The Medical and Dental School building.

LIBRARIES, NUMBERED IN THE ORDER OF THEIR PROXIMITY TO THE UNIVERSITY.

*Within less than a five or six minutes' walk:*

1. Library of Department of Labor, 8,000 volumes.*
2. " " Department of Justice, 30,000 "
3. " " Treasury Department, 22,000 "
3. " " Light-House Board, 4,000 "
4. " " Bureau of Statistics, 5,000 "
5. " " Geological Survey, 31,000 "
5. " " Bureau of Ethnology, 5,000 "
6. " " Corcoran Gallery of Art, 2,500 "
7. " " War Department, 37,000 "
7. " " Navy Department, 25,000 "
7. " " Department of State, 50,000 "
7. " " War Records Office, 2,000 "
7. " " Hydrographic Office, 3,000 "
8. " " Museum of Hygiene, 10,500 "

*Within a five or ten minutes' ride by the street railway:*

9. Library of United States Patent Office, 50,000 volumes.
—. " " Interior Department, 12,000 volumes.
—. " " Post Office Department, 10,000 volumes.
10. " " Bureau of Education, 30,000 volumes.
11. " " Department of Agriculture, 20,000 volumes.
12. " " Army Medical Museum, 105,000 volumes.
13. " " United States National Museum, 16,000 volumes.
14. " " United States Weather Bureau, 11,000 volumes.

*Within a fifteen minutes' ride by the street railway:*

15. The Library of Congress, 700,000 volumes.
15. The Library of the United States Supreme Court, 80,000 volumes.
15. The Library of the Smithsonian Institution, 250,000 volumes.
16. Site of the new Congressional Library.
17. Library of the United States Coast and Geodetic Survey, 12,000 volumes.
18. Site of the old United States Naval Observatory.

*Within a thirty minutes' ride by the street railway:*

Library of the new United States Naval Observatory (not indicated on map), 13,000 volumes.

Library of Nautical Almanac Office, 2,000 volumes.

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* Number of volumes July 1, 1893.

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# UNIVERSITY CALENDAR.

## Current Academic Year, 1895-'96.

| | | |
|---|---|---|
| 1895. | | |
| Sept. | 20. Examination of Candidates for Admission to College, Medical and Dental Schools. | Friday. |
| | 21. | Saturday. |
| Sept. | 23.—College Session begins. | Monday. |
| Sept. | 23.—Session of the Columbian Academy begins. | Monday. |
| Oct. | 1.—Session of Medical School begins. | Tuesday. |
| Oct. | 1.—Session of Dental School begins. | Tuesday. |
| Oct. | 2.—Session of Scientific School begins. | Wednesday. |
| Oct. | 3.—Session of Law School begins. | Thursday. |
| Oct. | 4.—Session of Graduate School begins. | Friday. |
| Nov. | 28-30.—Thanksgiving Recess. | |
| Dec. | 4.—Annual Meeting of Alumni. | Wednesday. |
| Dec. | 24-Jan. 5, 1896.—Christmas Recess. | |
| 1896. | | |
| Jan. | 20.—First Term College Examinations begin. | Monday. |
| Jan. | 23. First Term Scientific School Examinations begin. | Thursday. |
| Feb. | 3. Second Term of College and Scientific School begins. | Monday. |
| Feb. | 22.—Washington's Birthday. | Holiday. |
| Apr. | 3-6.—Easter Recess. | |
| Apr. | 28.—Commencement of Dental School. | Tuesday. |
| Apr. | 30.—Commencement of Medical School. | Thursday. |
| May | 4. Examinations for Degrees in Graduate School to be completed. | Monday. |
| May | 18. Reports of Examinations for Degrees in the Graduate School to be rendered. | Monday. |
| May | 19. Examinations for Degrees in Law School to be completed. | Tuesday. |
| May | 20. Examinations for Degrees in College and Scientific School to be completed. | Wednesday. |
| May | 25. Second Term Examinations in College and Scientific School begin. | Monday. |
| May | 30.—Decoration Day. | Holiday. |

1896.

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| June | 3.—Doctorate Disputation. | Wednesday. |
| June | 7.—Baccalaureate Sermon. | Sunday. |
| June | 8.—Commencement of Graduate School. | Monday. |
| June | 8.—Commencement of the Academy. | Monday. |
| June | 8.—Exhibition Day. | Monday. |
| June | 9.—Commencement of Law School. | Tuesday. |
| June | 10. { Commencement of College and Scientific School. } | Wednesday. |
| June | 15.—Annual Meeting of Corporation. | Monday. |

## Academic Year, 1896-'97.

1896.

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| Sept. | 28. { Examination of Candidates for Admission | Monday. |
| | 29. { to College, Medical and Dental Schools. } | Tuesday. |
| Sept. | 30.—Session of all the Departments begins. | Wednesday. |
| Nov. | 26–28.—Thanksgiving Recess. | |
| Dec. | 2.—Annual Meeting of Alumni. | Wednesday. |
| Dec. | 24–Jan. 4, 1897.—Christmas Recess. | |

1897.

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| Jan. | 18.—First Term College Examinations begin. | Monday. |
| Jan. | 21. { First Term Scientific School Examinations begin. } | Thursday. |
| Feb. | 1. { Second Term of College and Scientific School begins. } | Monday. |
| Feb. | 22.—Washington's Birthday. | Holiday. |
| Apr. | 16–19.—Easter Recess. | |
| Apr. | 27.—Commencement of Dental School. | Tuesday. |
| Apr. | 29.—Commencement of Medical School. | Thursday. |
| May | 3. { Examinations for Degrees in Graduate School to be completed. } | Monday. |
| May | 17. { Reports of examinations for Degrees in the Graduate School to be rendered. } | Monday. |
| May | 18. { Examinations for Degrees in Law School to be completed. } | Tuesday. |
| May | 19. { Examinations for Degrees in College and Scientific School to be completed. } | Wednesday. |
| May | 24. { Second Term Examinations in College and Scientific School begin. } | Monday. |
| May | 31.—Decoration Day. | Holiday. |
| June | 2.—Doctorate Disputation. | Wednesday. |
| June | 6.—Baccalaureate Sermon. | Sunday. |

1897.

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|---|---|---|
| June | 7.—Commencement of Graduate School. | Monday. |
| June | 7.—Commencement of the Academy. | Monday. |
| June | 7.—Exhibition Day. | Monday. |
| June | 8.—Commencement of Law School. | Tuesday. |
| June | 9. { Commencement of College and Scientific School. } | Wednesday. |
| June | 14.—Annual Meeting of the Corporation. | Monday. |

# THE COLUMBIAN ACADEMY.

## CALENDAR.

1896.

Sept. 28, Monday.....Entrance Examinations.
Sept. 30, Wednesday.....First Term begins.
Nov. 26–29, inclusive.....Thanksgiving Recess.
Dec. 14–18, inclusive.....Examinations.
Dec. 18, Friday.....First Term closes.

WINTER VACATION.

1897.

Jan. 4, Monday.....Second Term begins.
Feb. 22, Monday.....Washington's Birthday, Holiday.
March 15–17, inclusive.....Examinations.
March 17, Wednesday.....Second Term closes.
March 18–21, inclusive.....Spring Recess.
March 22, Monday.....Third Term begins.
April 16, Friday.....Holiday.
May 31, Monday.....Memorial Day, Holiday.
June 1–4, inclusive.....Examinations.
June 4, Friday.....Third Term closes.
June 7, Monday.....Annual Graduation Exercises.

## EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

## Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief Justice of the United States, and the Attorney General are honorary Overseers. Two Associate Justices of the Supreme Court of the United States and two Associate Justices of the Supreme Court of the District of Columbia are active members of its Law Faculty. The Directors of the Bureau of Ethnology and the United States National Museum are trustees of the University. The Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, and the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The pathology of mental diseases is taught in the Medical School by one of the physicians in charge at the Government Hospital for the Insane. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the National Geographic Society is a member of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University. The President of the Chemical Society is the Professor of Chemistry in the University. The President of the Columbian Engineering Society is the Professor of Civil Engineering in the Corcoran Scientific School and in the Graduate School of the University.

## Other Scientific Facilities in Washington.

Washington is as much the scientific center as it is the legislative, executive, and judicial center of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate of more than 1,200 persons. The Anthropological Society (Professor Lester

F. Ward, lecturer in The Columbian University, President), numbering, according to the last Scientific Directory, 225 active, 34 corresponding, and 23 honorary members, meets fortnightly or oftener, on Tuesday evenings. The Biological Society (General George M. Sternberg, U. S. A., President), with 166 active and 37 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society (Professor E. A. de Schweinitz, President), with 116 members, holds meetings on the second Thursday of each month. The Entomological Society (Mr. G. L. Marlatt, President), with 34 resident and 95 corresponding members, meets on the first Thursday of each month. The National Geographic Society (the Hon. Gardiner G. Hubbard, LL. D., President), with 1,316 members, meets every Friday. The Philosophical Society, (Professor F. W. Clarke, President), with 199 active and 66 non-resident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society (Professor J. Howard Gore, Chairman) meets on Wednesday, at irregular intervals, in the mathematical lecture-room of the Columbian University. The Society of Philosophical Inquiry (Professor J. MacBride Sterrett, President) meets every Tuesday afternoon during term time in the philosophical leeture-room of the Columbian University. The Columbian Engineering Society (Professor Francis R. Fava, Jr., C. E., President) meets on the first and the third Tuesday of each month in the Engineering Hall of the University. The Philological Association of the Columbian University meets, at the call of the Secretary, in the Latin recitation-room of the University. The Geological Society (Professor S. F. Emmons, President), comprising 151 active members and 37 corresponding members, meets on the second Wednesday of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences (Dr. Wolcott Gibbs, President) meets annually in Washington in April.

During the Christmas holidays the lecture halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society for the purposes of their annual meetings. As many as sixteen national or international societies held their annual meetings in the University building during the year 1895–'96. These meetings are open to the students of the University.

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*President of the Corporation.*

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GARDINER G. HUBBARD, LL. D., 1328 Connecticut Avenue, N. W.
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CHARLES W. NEEDHAM, ESQ., 1730 16th Street, N. W.
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ROBERT H. MARTIN, ESQ., 1719 S Street, N. W.
WILLIAM H. McKNEW, ESQ., 1322 Q Street, N. W.

ROBERT H. MARTIN, *Secretary and Treasurer.*

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*Committee on Nominations to Fill Vacancies in the Corporation.*

Messrs. STAKELY and WOODWARD.

*Committee on the Columbian Academy.*

Messrs. WILSON, MASON, and WOODWARD.

*Committee on the Columbian College.*

Messrs. STAKELY, GREENE, and DARLINGTON.

*Committee on the Medical and Dental Schools.*

Messrs. NOYES, CURRY, and MARTIN.

*Committee on the Law School.*

Messrs. MATTINGLY, CURRY, and NEEDHAM.

*Committee on the Corcoran Scientific School.*

Messrs. POWELL, HUBBARD, and MASON.

*Committee on the School of Graduate Studies.*

Messrs. GOODE and GALLAUDET.

*Auditing Committee.*

Messrs. WILSON and NEEDHAM.

*Committee on Increase of University Endowment.*

Messrs. LEVERING, GREENE, NOYES, ELLIS, and HUBBARD.

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A. P. MONTAGUE, A. M., PH. D.
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JOHN M. REYNOLDS, A. M.
CHARLES C. TUCKER, LL. M.
ALDIS B. BROWNE, LL. B.

# ENDOWMENTS.

The value of the University's property and endowments is estimated at about $1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of $250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and Lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said corporation by its original name."

# FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them and called the —— Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them as an endowment for the support of (the School of ——), (a Professorship of ——), (a Lectureship in the School of ——), (a Fellowship in the School of ——) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special significance in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors. The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corcoran Scientific School a separate specialty is called a "Department."

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# OFFICERS OF INSTRUCTION AND GOVERNMENT.

ACADEMIC YEAR 1895–'96.

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1223 Connecticut Avenue, N. W.

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813 Westminster Street, N. W.

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1751 P Street, N. W.

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1767 Massachusetts Avenue, N. W.

GEORGE P. MERRILL, Ph. D., *Professor of Geology and Mineralogy*,
Cosmos Club.

EMIL H. MEYER, *Instructor in Free-hand Drawing*,
1407 Park Place, Mt. Pleasant, D. C.

JOSEPH S. MILLS, A. M., *Assistant in Qualitative Analysis*,
1132 Tenth Street, N. W.

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2700 Thirteenth Street, N. W.

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3302 Seventeenth Street, N. W.

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1230 Ninth Street, N. W.

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1521 I Street, N. W.

EDWARD ADAMS MUIR, *Assistant in Machine Drawing*,
512 Third Street, N. W.

CHARLES EDWARD MUNROE, Ph. D., *Professor of Chemistry and Dean of the Corcoran Scientific and Graduate Schools*,
1729 Riggs Street, N. W.

CHARLES W. NEEDHAM, Esq., *Associate Justice of the Court of Appeals of the Law School*,
1730 Sixteenth Street, N. W.

HARRY F. NEWCOMB, LL. M., *Instructor in Statistics*,
1524 Caroline Street, N. W.

HENRY B. NOBLE, Sr., D. D. S., *Clinical Operator in Dentistry*,
1324 New York Avenue, N. W.

RUPERT NORTON, M. D., *Demonstrator of Normal Histology*,
The Concord.

WILLIAM ORDWAY PARTRIDGE, *Professor of Fine Arts*,
Cosmos Club.

ALBERT CLARK PATTERSON, *Professor of Mental Diseases*,
Hospital for the Insane, Lock Box 27.

W. F. R. PHILLIPS, M. D., *Professor of Hygiene and Assistant Demonstrator of Anatomy*,
1103 Thirteenth Street, N. W.

JOSIAH PIERCE, Jr., A. M., *Professor of Drawing and Applied Geometry*,
1325 Massachusetts Avenue, N. W.

MINOTT E. PORTER, B. S., *Assistant in Geography*,

JOHN WESLEY POWELL, A. M., LL. D., *Lecturer on History of Culture*,
910 M Street, N. W.

DANIEL WEBSTER PRENTISS, A. M., M. D., *Professor of Materia Medica and Therapeutics*,
1101 Fourteenth Street, N. W.

HENRY ROGERS PYNE, A. M., *Instructor in Greek and Latin*,
1702 S Street, N. W.

MARATHON MONTROSE RAMSEY, A. M., *Instructor in Romance Languages*,
2120 H Street, N. W.

WALTER REED, M. D., *Professor of Pathology and Bacteriology*,
5 Cooke Place, N. W.

CHARLES RUSSELL RICE, D. D. S., *Assistant Demonstrator of Dentistry*,
57 K Street, N. E.

HERBERT LOUIS RICE, M. S., *Instructor in Astronomy*,
2502 M Street, N. W.

CHARLES WILLIAMSON RICHARDSON, M. D., *Professor of Laryngology and Otology and Clinical Professor of Laryngology and Otology*,
1102 L Street, N. W.

POWHATTAN W. ROBERTSON, *Assistant in Accounting*,
1753 Madison Street, N. W.

STERLING RUFFIN, M. D., *Professor of Medical Jurisprudence and Demonstrator of Anatomy*,
1023 Vermont Avenue, N. W.

HERMANN SCHOENFELD, PH. D., *Professor of German and Continental History*,
939 New Hampshire Avenue, N. W.

E. A. DE SCHWEINITZ, PH. D., M. D., *Professor of Chemistry and Toxicology and Secretary-Treasurer of the Medical and Dental Schools*,
1325 H Street, N. W.

J. FOSTER SCOTT, M. D., *Clinical Professor of Obstetrics*,
1513 Rhode Island Avenue, N. W.

EDWARD G. SEIBERT, M. D., *Demonstrator of Chemistry*,
24 Grant Place, N. W.

CHARLES TILDEN SEMPERS, A. M., *Instructor in English and Director of University Extension*,
1537 Fifteenth Street, N. W.

HENRY SIMPSON, *Associate Professor of Architecture*,
Clopper Station, Maryland.

ALEXANDER R. SHANDS, M. D., *Professor of Orthopedic Surgery*,
1305 H Street, N. W.

D. KERFOOT SHUTE, A. B., M. D., *Professor of Anatomy and Dean of the Medical School*,
1120 New York Avenue, N. W.

SAMUEL MOORE SHUTE, A. M., D. D., *Emeritus Professor of English and Anglo-Saxon*,
Kerfoot, Virginia.

J. CURTIS SMITHE, D. D. S., *Clinical Operator in Dentistry*,
1315 New York Avenue, N. W.

GEORGE J. SMITH, LL. M., PH. D., *Acting Professor of English and Instructor in Anglo-Saxon*,
1423 Florida Avenue, N. W.

ANTONIO MARIA SOTELDO, A. B., LL. D., *Professor of Spanish*,
1333 Q Street, N. W.

TIMOTHY W. STANTON, A. M., *Assistant in Geology, Instructor in Paleontology and Stratigraphical Geology*,
205 Thirteenth Street, S. W.

PAUL A. STEELE, *Instructor in Commercial Law, Book-keeping, and Penmanship*,
600 A Street, N. E.

JAMES MACBRIDE STERRETT, A. M., D. D., *Professor of Intellectual and Moral Philosophy*,
Pierce Mill Road, D. C.

PERLY EGBERT STEVENS, C. E., *Assistant in Applied Mathematics and in Engineering,*
202 Eleventh Street, S. W.

JAMES STUART, M. D., *Assistant Demonstrator of Anatomy,*
1226 Fifteenth Street, N. W.

HENRY CLAY THOMPSON, D. D. S., *Lecturer on Operative Dentistry,*
118 E Street, N. W.

J. FORD THOMPSON, M. D., *Professor of Surgery,*
804 Seventeenth Street, N. W.

ERNEST LAWTON THURSTON, C. E., *Assistant in Drawing,*
1503 R Street, N. W.

EDMUND LEE TOMPKINS, M. D., *Professor of Nervous Diseases and Clinical Professor of Medicine,*
1134 Connecticut Avenue.

WILLIAM H. TRAIL, D. D. S., *Assistant Demonstrator of Dentistry,*
612 Thirteenth Street, N. W.

JOHN VAN RENSSELAER, A. B., M. D., *Professor of Surgical Pathology and Clinical Professor of Surgery,*
2 Thomas Circle, N. W.

LESTER F. WARD, PH. D., *Lecturer on Sociology,*
1464 Rhode Island Avenue, N. W.

WILLIAM S. WASHBURN, M. D., *Demonstrator of Normal Histology,*
1223 M Street, N. W.

JOHN R. WELLINGTON, A. M., M. D., *Demonstrator of Minor Surgery and Assistant Demonstrator of Anatomy,*
1335 N Street, N. W.

CABELL WHITEHEAD, B. M., *Assistant in Assaying,*
1114 New Hampshire Avenue, N. W.

WILLIAM ALLEN WILBUR, A. M., *Instructor in Latin and English Literature and Dean of the Columbian Academy,*
1353 Q Street, N. W.

HARVEY WASHINGTON WILEY, PH. D., M. D., *Professor of Agricultural Chemistry*,
1314 Tenth Street, N. W.

WILLIAM LYNNE WILSON, A. B., LL. D., *Lecturer on American Economic Legislation*,
1741 Q Street, N. W.

WILLIAM CRAWFORD WINLOCK, A. B., *Professor of Astronomy*,
2005 O Street, N. W.

FRANK A. WOLFF, PH. D., *Assistant Professor of Physics*,
1509 Vermont Avenue, N. W.

W. M. WOOSTER, M. D., *Assistant Demonstrator of Anatomy*,
1228 Fourteenth Street, N. W.

CARROLL D. WRIGHT, LL. D., *Lecturer on Social Statistics*,
1209 S Street, N. W.

HENRY CIECY YARROW, M. D., *Professor of Dermatology*,
814 Seventeenth Street, N. W.

HANS ZOPKE, *Professor of Mechanical Engineering*,
939 New Hampshire Avenue, N. W.

**Janitors.**

WALTER L. LEWIS, *University Building.*
RIXON T. HARRIS, *University Building.*
HARRISON BROWN, *Law Building.*
DANIEL CONNOR, *Medical School.*
WALTER HONESTY, *The Columbian Academy.*
WILLIAM ALEXANDER, *Dental School.*

## UNIVERSITY COMMITTEES.

The President and Deans of the University will meet in committee on the first Monday of each month at 3 o'clock, p. m.

### Committee on Publications.

Professor CHARLES E. MUNROE, Chairman.
" A. J. HUNTINGTON, Graduate.
" A. P. MONTAGUE, College.
" D. K. SHUTE, Medical.
" W. S. COX, Law.
" J. HALL LEWIS, Dental.
" H. L. HODGKINS, Alumni.

### Committee on Athletics and Entertainments.

Professor A. P. MONTAGUE, Chairman.
" CHARLES E. MUNROE, Scientific.
" J. MACB. STERRETT, Graduate.
" D. K. SHUTE, Medical.
" WILLIAM G. JOHNSON, Law.
" J. HALL LEWIS, Dental.
Mr. JOHN JOY EDSON, Alumni.

### Committee on Lectures.

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" J. MACB. STERRETT, College.
" J. M. HARLAN, Law.
" WILLIAM P. CARR, Medical.
" H. C. THOMPSON, Dental.
Mr. CHAPIN BROWN, Alumni.
Mr. R. H. MARTIN, Secretary and Treasurer of the University.

# THE COLUMBIAN COLLEGE.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
*President.*

ANDREW P. MONTAGUE, PH. D.,
Dean and Professor of Latin.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English and Anglo-Saxon.

JAMES HOWARD GORE, PH. D.,
Professor of Mathematics and Secretary of the Faculty.

HOWARD L. HODGKINS, PH. D.,
Professor of Physics.

LEE DAVIS LODGE, PH. D.,
Professor of Political Philosophy.

THE REV. JAMES MACBRIDE STERRETT, D. D.,
Professor of Intellectual and Moral Philosophy.

CHARLES E. MUNROE, PH. D.,
Professor of Chemistry.

ANTONIO M. SOTELDO, LL. D.,
Professor of Spanish.

WILLIAM ORDWAY PARTRIDGE,
Professor of the Fine Arts.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

——— ———,
Professor of Civil Engineering.

GEORGE J. SMITH, PH. D.,
Instructor in English and in Anglo-Saxon.

EDWARD FARQUHAR, PH. D.,
Instructor in History.

GEORGE N. HENNING, A. B.,
Instructor in French.

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HON. WILLIAM L. WILSON, LL. D.,
Lecturer on American Economic Legislation.

HON. JOHN W. POWELL, LL. D.,
Lecturer on The History of Culture.

OTIS T. MASON, PH. D.,
Lecturer on The Origins of Culture.

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**Standing Committees of the Faculty.**

*Committee on Admission of Students.*
Professors HODGKINS, GORE, and LODGE.

*Committee on Degrees.*
Professors HUNTINGTON, MUNROE, and STERRETT.

*Committee on Library.*
Doctor SMITH and Professors STERRETT and SCHOENFELD.

*Committee on Revision of Studies.*
Professors LODGE, GORE, and HODGKINS.

*Committee on Schedule.*
Professors GORE, HUNTINGTON, and MUNROE.

The College is open to students of both sexes.

The regular course of instruction is comprised in fourteen schools, as follows:

I. SCHOOL OF ENGLISH: including English Philology, Anglo-Saxon, English Literature, Rhetoric, and Forensics.

II. SCHOOL OF GREEK: including the Greek Language and Literature.

III. SCHOOL OF LATIN: including the Latin Language and Literature.

IV. SCHOOL OF FRENCH: including the French Language and Literature.

V. SCHOOL OF SPANISH: including the Spanish Language and Literature.

VI. SCHOOL OF GERMAN: including the German Language and Literature.

VII. SCHOOL OF MATHEMATICS: including Pure Mathematics, Mechanics, and Astronomy.

VIII. SCHOOL OF CHEMISTRY: General, Inorganic, and Organic Chemistry, Laboratory Practice, Qualitative and Quantitative Analysis.

IX. SCHOOL OF PHYSICS.

X. SCHOOL OF PHILOSOPHY.

XI. SCHOOL OF POLITICAL PHILOSOPHY.

XII. SCHOOL OF THE FINE ARTS.

XIII. SCHOOL OF HISTORY: including Ancient, Mediæval, and Modern History.

XIV. SCHOOL OF CIVIL ENGINEERING.

## School of English.

DOCTOR SMITH.

1. The rhetorical principles of style and invention, with frequent written exercises and systematic criticism; later with study of the style of standard authors. Two hours a week.

Text-books: Genung's Practical Rhetoric and, as required, texts of selected authors.

2. Introductory general course in the history of English literature, followed by a study of the development of English prose style, from selected readings. One hour a week.

Text-books: Shaw's New History of English Literature and selected works as required.

3. English Literature from Chaucer to 1750. Lectures; readings for the class and in the class from representative authors, with study of literary movements and of the character of special periods, by investigations, reported in essay form. Two hours a week.

Texts of pieces of standard literature as required.

4. The origin, development, and present powers of the English language. One hour a week.

Text-book: Lounsbury's English Language.

5. English Literature from 1750 to the present time; sequel to course 3 and similarly conducted. Two hours a week, first term.

Selected texts.

6. American Literature, its development and its masterpieces. Readings, lectures, investigations. Two hours a week, second term.

Text book: Beers's American Literature.

7. The History of English Poetry, lectures and investigations. Two hours a week, first term.

8. The English Poets of the Nineteenth Century. Readings, for appreciation and criticism. Two hours a week, second term.

9. Forensics, a practical course in argumentation, with preparation of briefs, oral and written arguments, study of forensic masterpieces. One hour a week.

Of the following elective courses the last two are open only to Juniors and Seniors:

10. The Anglo-Saxon Language and Literature. One hour a week. Text-book: Bright's Anglo-Saxon Reader.

11. The History and Theory of the Drama, with lectures and readings of masterpieces. One hour a week, first term.

12. English and Scottish Ballads. One hour a week, second term. Text-book: Gummere's Edition of the Ballads.

13. The Essay as a Literary Form. Readings and criticisms. One hour a week, first term.

14. Fiction, its History and Technique. Critical study of selected works. One hour a week, second term.

For Graduate Courses in English, see under head of "Graduate School."

## School of Greek.

PROFESSOR HUNTINGTON.

In this School instruction is given in the Greek Language and Literature. The following books are used as text-books or for reference: Goodwin's and Hadley's Greek Grammars, Allinson's Greek Prose Composition, and Oman's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's or Long's or Ginn & Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all the classes.

In this School portions of the following authors are studied:

1. Homer; Herodotus. Three hours a week for two terms.

2. Xenophon (*Memorabilia*); Lucian. Three hours a week for one term.

3. Isocrates and Lucian. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week for two terms.

5. Plato (and Thucydides) and Æschylus. One hour a week for two terms.

For Graduate Courses in Greek, see under head of "Graduate School."

## School of Latin.

### PROFESSOR MONTAGUE.

In this School instruction is given in the Latin Language and Literature. Courses 7, 8, and 9 constitute the Graduate Department, in which those parts of the works of the authors named which are not usually read by undergraduates are assigned. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required; in course 4, lectures are given upon Pedagogics; and to give practical illustration of the principles and suggestions thus presented, the students are from time to time called to the chair and required to conduct the recitation.

The following works are recommended: Grammars: Harkness's (textbook), Allen and Greenough's, Peters's and Madvig's; Lexicons: Harper's, White's English-Latin; Roman Literature: Cruttwell's, Wilkins's; Classical Atlas: Ginn & Co.'s or Kiepert's; Histories: Merivale's, Allen's, Myers's. In all the courses selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

#### COURSES.

1. Ovid, Livy, Horace (*Odes*). Three times a week for nine months.

2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Pliny (*Letters*), Plautus (*Captivi*). Three times a week for four and a half months.

3. Cicero (*Letters*), Tacitus (*Germania*), Terence (*Andria*), Roman Antiquities. Three hours a week for four and a half months.

4. Tacitus (*Agricola* and *Annals I.*); Seneca, Juvenal; Critical Study of the History of Rome; annotations by the students upon the authors read. For practical instruction in this work, see course "Books and Book-making." Three hours a week for nine months.

5. Cicero (*De Oratore*); Quintilian; Essays upon Roman Literature. One hour a week for six months.

6. Cicero (*De Finibus*), Social Life of the Romans. One hour a week for five months.

For Graduate Courses in Latin, see under head of "Graduate School."

## School of French.

Mr. HENNING.

1. The class is drilled in French pronunciation; grammar; progressive exercises in composition; dictation exercises.

Works read: *Histoire d'un Conscrit; Le Voyage de M. Perrichon; Les Trois Mousquetaires.* Three hours a week.

2. French syntax critically studied; dictation exercises; short original essays; conversation.

Works read: *L'Avare; Le Bourgeois Gentilhomme; Andromaque; La Canne de Jonc; L'Abbé Constantin; Colomba;* parallel reading in Lacombe's *Histoire du Peuple Français.* Three hours a week.

3. Lectures on the history of the literature and the development of the language. Students in this course will be required to take Course II in the School of Political Philosophy.

Works read: *Bug-Jargal; Le Misanthrope; Les Précieuses Ridicules; Horace; Cinna; Le Barbier de Séville;* Nineteenth Century stories and plays. Three hours a week.

4. Philological studies based on original texts; thorough investigation in the origin of the laws of French syntax; *La Chanson de Roland; Ruy Blas, Hernani,* and Crane's *Romantisme Français* are also read. Two hours a week.

5. Lectures on the history of French Literature; systematic study by the class of one or more epochs; Comparative Literature. The authors read vary with the epochs chosen for study. Two hours a week.

During the first term opportunity is given for *Seminary* work of a strictly literary nature. One of the makers of French Literature is studied in his genesis, his essential characteristics, and his influence upon later writers in France and in other lands.

## School of Spanish.

PROFESSOR SOTELDO.

Thorough instruction is given in the Castilian Language, with especial regard to a true and correct pronunciation and to the acquisition of the language in the shortest time possible.

Soteldo's "Spanish Grammar" and "Gramática Inglesa para los Españoles," composed especially to promote the reciprocal studies of the two predominant languages of the three Americas, will be used as text-books.

## School of German.

PROFESSOR SCHOENFELD.

Instruction in this department has, as its primary object, a thorough knowledge of the Grammar and familiarity with the literature, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German Grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

Text-books: Otis's and Thomas's Grammars.

1. Accurate training in elementary grammar (Otis); pronunciation and translation into German; beginning of conversation; readings from Van Daell's Preparatory German Reader, *Bilderbuch ohne Bilder*, *Immensee*, and some easy German poetry. Two hours a week.

2. German syntax; extensive translation into German; selected stories; beginning of classical reading and literature; elements of German history. Three hours a week.

3. Study of the principal difficulties of the language; idioms, synonyms (Sanders's *Hauptschwierigkeiten der deutschen Sprache*); German essays; literature of the second German Blüteperiode; German history; extensive reading from the classics. Three hours a week.

4. Elements of philology; survey of German literature; history of the old and new German Empire; lectures in German; extensive classical reading; introduction into the *Nibelungen Lied*. Three hours a week.

During the current academic year a class in Polish is conducted by Professor Schoenfeld. The elements of phonetics, grammar, prose, and poetry are taught.

For reference: "Higher Education in Russian, Austrian, and Prussian Poland."

## School of Mathematics.

PROFESSOR GORE.

In this School instruction is offered in twelve courses.

1. Solid Geometry; Wells's Revised Geometry. Four hours a week for two months.
2. Algebra; Taylor's Algebra. Four hours a week for three months.
3. Plane Trigonometry; Wells's Trigonometry. Four hours a week for two months.
4. Spherical Trigonometry; Wells's Trigonometry. Three hours a week for two months.
5. Analytic Geometry; Nichols's Analytic Geometry. Three hours a week for four months.
6. Theory of Equations; Chapman's Theory of Equations. Three hours a week for two months.
7. Differential and Integral Calculus, Taylor. Three hours a week for six months.
8. Differential Equations, Gore. Three hours a week for two months.
9. Determinants, with applications, Weld. Two hours a week for one term.
10. Elliptic Functions, Baker. Two hours a week for one term.

In all of the above courses the text is supplemented by lectures and the principles emphasized by proposing for solution a large number of problems taken from the best European and American authorities.

While the disciplinary value of the study of mathematics is never lost sight of, the importance of its practical applications is insisted upon.

### OPTIONAL COURSES.

11. Analytical Mechanics, Wood. One hour a week for two terms.
12. Theory of Probabilities, with Applications to Least Squares; Lectures, notes by Professor Gore. One hour a week for two terms.

For Graduate Courses in Mathematics, see under head of "Graduate School."

## School of Chemistry.

PROFESSOR MUNROE.

1. General Inorganic and Organic Chemistry. Three hours a week for one year.
Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. Laboratory Practice. Three periods a week for one year.
Cooke's Laboratory Practice.

3. Qualitative Analysis.
Clowe's Qualitative Analysis.

4. Quantitative Analysis.
Thorpe's Quantitative Chemical Analysis.
For Graduate Courses in Chemistry, see under head of "Graduate School."

## School of Physics.

PROFESSOR HODGKINS.

1. A recitation and lecture course on General Physics, embracing the fundamental principles of Mechanics, Sound, Heat, Light, and Electricity. The lectures will be illustrated by experiments and will be based on Gage's Principles of Physics. Three hours a week.

2. An advanced course on General Physics. This will be a theoretical and mathematical course and will require a thorough acquaintance with the phenomena of Physics. Barker's Physics will be used as the text-book. Three times a week.

3. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course 1. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports. Three times a week.

4. A lecture and laboratory course in Magnetism and Electricity. Three times a week.

5. Light. A lecture and laboratory course, based on Preston's Theory of Light. Three times a week.

6. Heat. A lecture and laboratory course, based on Preston's Theory of Heat. Three times a week.

## School of Philosophy.

### PROFESSOR STERRETT.

The special studies in this School as directed by Professor STERRETT are pursued in the two upper classes.

1. The Junior Class (four hours a week) study Logic one hour a week. Jevons–Hill (*Elements of Logic*) is used as a text-book.

2. Three hours a week during the first term is given to the study of Psychology, the aim being to make this work a preparation for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will, as organic processes of the man developing into conscious universal relations.

Dewey or Höffding used as hand-book, with lectures and themes.

The second half of the year (three hours a week) is given to the History of Philosophy. This is given in a course of lectures, concurrent readings and theses being required from the students. *Schwegler's Manual* is followed.

3. The Senior Class spends the first half of the year (four hours a week) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Kant, Mill, and Spencer, and to hand in well-prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. McKenzie's *Manual of Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

This is followed by a six weeks' course on the Philosophy of History.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy (two hours a week, in the afternoon), and for attendance on the course of papers and discussions before *The Society for Philosophical Inquiry*, meeting in the University every Tuesday afternoon, with program for the current year as shown in course of philosophical lectures open to the students, mention of which is made in this Catalogue.

COURSES, ALTERNATE AND ELECTIVE.

4. Experimental Psychology. Lectures, with study of the method, scope, and most general results of Experimental Psychology. First term, one hour a week.

5 (*a*). History of Ancient Philosophy. Second term, three hours a week. Lectures, with study of some of the text, and *Zeller's* History.

5 (*b*). History of Modern Philosophy. Second term, three hours a week, alternating with (5*a*) Lectures, with study of text of several systems and with reference to Falkenburg and Windelband.

6. Pedagogics. Lectures and text-book study of the History and Philosophy of Education. *Painter and Rosenkrans.* Elective. Second term, one hour a week.

7. The Metaphysics of Ethics. Study of Green's *Prolegomena to Ethics.* Second term, one hour a week.

Professor Sterrett offers this year a prize of $45 to the member of the Senior Class who attains the highest standing in Ethics and prepares the best thesis on the topic of "The Doctrine of the End in Ethics."

For Graduate Courses in Philosophy, see under head of "Graduate School."

## School of Political Philosophy.

PROFESSOR LODGE.
HON. W. L. WILSON.
MAJOR J. W. POWELL.
DOCTOR O. T. MASON.

GENERAL STATEMENT.

The studies in this School are designed to furnish the learner with an account of the genesis, development, and growth of political institutions. In all the branches pursued the method is comparative. Particular pains are taken to send students to the original sources of information as far as possible. To this end the class are constantly called upon to make use of the unequaled facilities of the Capital City for historical research. The archives of the Department of State are utilized to bring the student into direct contact with the original documents of American history.

COURSES.

1. The Development of the English Constitution; lectures; collateral reading; studies in Gardiner, Freeman, Stubbs, and Boutmy. Two hours a week for three months.

2. The History of French Political Institutions; lectures; studies in Guizot, Taine, and Sir James Stephens. Two hours a week for three months.

3. The Evolution of American Political Ideas; lectures; studies of our history in its sources; collateral reading in the standard American historians and in C. E. Stevens's *Sources of the Constitution*. Two hours a week for three months.

4. Political Economy; text-book, Perry; studies in socialism and communism, coöperation, and other current economic problems. Three hours a week for one year.

The Hon. W. L. Wilson will deliver a course of lectures upon the history of American economic legislation.

5. The History of Political Economy in Europe; lectures; studies in Blanqui. One hour a week for one term.

6. The Economic History of the United States; lectures; studies in Wells, Sumner, and Taussig. One hour a week for one term.

7. The Constitutional Law of the United States; text-books, Cooley and Bryce, with frequent studies in Elliot's Debates, the Federalist, Bancroft's Formation of the Constitution, Marshall, Story, Pomeroy, and Von Holst. Two hours a week for one year.

8. International Law; text-books, Gallaudet and Lawrence; lectures on the History of the Law of Nations; studies in Maine, Wheaton, and Calvo. One hour a week for one year.

9. The Theory of the State; text-books, Histoire de la Science Politique, Janet; History of the Science of Politics, Pollock; The Theory of the State, Bluntschli; studies in Montesquieu, Hobbes, Locke, and Woolsey. Two hours a week for one year.

10. The History of Civilization, a course of lectures on history, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progress measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies in primitive society, and are followed by a rapid survey of the

"civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America. Two hours a week for one year.

This instruction is supplemented by two courses of lectures—one course by Major J. W. Powell, LL. D., on the Four Stages of Culture, and the other course by Doctor O. T. Mason, on Origins.

For Graduate Courses in Political Philosophy, see under head of "Graduate School."

## Books and Bookmaking.

PROFESSOR GORE.

In this course instruction will be given in:

1. The collection and preservation of material preparatory to the writing of a book. Lecture by Professor Mason on "How to Write a Book."
2. The preparation of manuscripts.
3. The illustrating of books. Lecture by Mr. R. E. Earll.
4. Printing of books. Lecture by Mr. George H. Judd.
5. Proof-reading, with extensive practice.
6. Book-binding, including lettering and styles of binding. Illustrated lecture by Doctor Fletcher.
7. Cataloguing and classification. Lecture by Dr. T. N. Gill.
8. Bibliography.

Every effort will be made to utilize the exceptional advantages offered by the presence in Washington of specialists in the topics outlined above, and opportunities will be offered for practical work by members of the faculty engaged in literary work or who require of their students thorough investigation.

The private library of the professor is well equipped with bibliographic aids and illustrative material.

## School of the Fine Arts.

PROFESSOR PARTRIDGE.

Announcements concerning the course and the lectures in this School will be made at the beginning of the next academic year.

## School of History.

DOCTOR FARQUHAR.

In this School instruction is given in Ancient, Mediæval, and Modern History, especial attention being paid to American History. Frequent lectures are given.

1. American History: Johnston, Fiske. One hour a week.
English History: Airy, Freeman, Greene. One hour a week.

2. Ancient History: Ragozin, Baugsch, Oman, Grote, Liddell, Merivale, Mommsen. One hour a week.

3. Mediæval History: Gibbon, Hallam. Two hours a week.

4. Modern History: Lectures and Essays, with references to standard histories. One hour a week.

For Graduate Courses in History, see under head of "Graduate School."

## School of Civil Engineering.

PROFESSOR ——.

A School of Civil Engineering has been established, in which instruction will be offered at the opening of the coming academic year. Among the subjects taught will be Drawing (Geometric and Free-hand), Descriptive Geometry, Mechanics, Graphic Statics, Surveying, Theory of Trusses, Planning and Construction of Bridges and Buildings, Design of Masonry Structures, Railroad Engineering, Hydraulics, Engineering Applied to Water Supply and Irrigation, Foundations, Design and Construction of Sewers, Harbor and River Improvements, and Materials used in Practical Engineering.

## Time and Terms of Admission.

The College opens on the Wednesday following the last Sunday in September.

I. Entrance examinations will be held on Friday and Saturday, June 5 and 6, and on Monday and Tuesday, September 28 and 29, 1896.

The following will be the schedule:

| | |
|---|---|
| First day: | 9.00–10.30, English. |
| | 10.30–12.00, Latin. |
| | 12.30– 2.00, Greek; Solid Geometry. |
| | 2.00– 3.30, French. |
| Second day: | 9.00–10.30, German. |
| | 10.30–12.00, Physics. |
| | 12.30– 2.00, Algebra. |
| | 2.00– 3.30, Plane Geometry. |

II. Every applicant is required to submit testimonials of character and scholarship.

III. Candidates for admission to the course leading to the degree of Bachelor of Arts will be examined in English, Greek, Latin, French or German, Algebra, and Plane Geometry.

IV. Candidates for admission to the course leading to the degree of Bachelor of Science will be examined in English, Algebra, Plane Geometry, Solid Geometry, Physics, French, German or Latin.

V. Candidates for admission in English will be examined upon English Grammar, Rhetoric, and English and American Literature. They will be required to write upon topics relating to the following works: Shakespeare's *Midsummer Night's Dream* and **Merchant of Venice*, *Milton's *L' Allegro*, **Il Penseroso*, **Comus* and **Lycidas*, Defoe's *History of the Plague in London*, Scott's *Woodstock*, Macaulay's *Essay on Milton*, George Eliot's *Silas Marner*, Webster's **First Bunker Hill Oration*, Irving's *Tales of a Traveller*, Longfellow's *Evangeline*. Candidates should have read intelligently all these books, but with especial and critical thoroughness those which are marked with a star.

VI. Candidates for admission in Greek in its lowest class will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek Reader or Xenophon's *Anabasis* (first four books), first three books of Homer's *Iliad*, Jones's Greek Prose Composition, and Myers's or Schmitz's History of Greece.

VII. Candidates for admission in Latin will be examined in Harkness's Latin Grammar, four books of Cæsar's *Commentaries*, six of Cicero's Orations, six books of the *Æneid* of Vergil, Sallust's *Conspiracy of Catiline* (in part), Ovid's *Metamorphoses* (two books), Latin Composition, and Allen's, Myers's, or Pennell's History of Rome.

VIII. Candidates for admission in French will be examined in Edgren's French Grammar and in the first hundred pages of Rollins's French Reader.

IX. German; Essentials of German Grammar and easy German prose.

X. Candidates for admission to the School of Mathematics in its lowest class will be examined in Algebra (through Quadratic Equations) and in Plane Geometry; and in Solid Geometry for the degree of B. S.

XI. Candidates for admission to the courses leading to the degree of Bachelor of Science will be examined in Elementary Physics. Carhart and Chute's Physics, Avery's School Physics, Gage's Introduction to Physical Science, or Hall and Bergen's Text-book of Physics will give suitable preparation.

XII. Candidates may be excused from examination in some or all of the required subjects by presenting certificates from the Washington High School or from other Schools of good standing. Blank forms of such certificates may be obtained on application to the Dean.

XIII. Real equivalents in quality and amount will be received in place of the books or parts of the books prescribed for study preparatory to admission into the Schools of Greek, Latin, and Mathematics.

XIV. Candidates for admission to an advanced class in any School will be examined in all indispensable preliminary studies.

XV. Students wishing to pursue a special course in certain Schools will be admitted to the classes for which they may be found qualified, and every student pursuing such a course, if under the age of twenty-one years, is required to include in the selections not less than three distinct Schools, with at least twelve recitations or lectures a week. The choice of studies embraced in a special course must be made immediately upon the commencement of a term, and no student, without permission of the Faculty, may make a new choice of studies during any single term.

XVI. No student will be permitted to take more than eighteen recitation or laboratory periods a week, except by special permission of the Faculty.

## Degrees.

The degree of Bachelor of Arts or Bachelor of Science is conferred on students who complete the appropriate course of study as outlined below.

Courses of Graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this catalogue.

### COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF ARTS.

(The figures refer to the numbers of the courses in the several Schools of the College, as previously described.)

#### FRESHMAN YEAR.

English, 1, 2.
Greek, 1.
Latin, 1.
French, 1; or
German, 1.
Mathematics, 1, 2, 3.
History, 1.

#### SOPHOMORE YEAR.

Greek, 2, 3.
Latin, 2, 3.
French, 2; or
German, 2.
History, 2.
English, 3.
Mathematics, 4.
Chemistry, 1; or
Physics, 1.

#### JUNIOR YEAR.

Greek, 4; or
Latin, 4.
English, 4, 5, 6.
Philosophy, 1, 2.

Elective, 6 hours a week, of which 2 hours must be taken in the School of Political Philosophy.

#### SENIOR YEAR.

Greek, 5; or
Latin, 5 or 6.
Political Philosophy, 4.
English, 9.
Philosophy, 3.
History, 4.

Elective, 6 hours a week.

COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

FRESHMAN YEAR.

English, 1, 2. Mathematics, 1, 2, 3.
Chemistry, 1. Physics, 1.

Elective, two languages, one of which must be French or German.

SOPHOMORE YEAR.

English, 3. Chemistry, 1.
Mathematics, 4, 5, 6. Physics, 2.

Elective, two languages, one of which must be French or German.

JUNIOR YEAR.

Mathematics, 7, 8. Chemistry, 2; or
Philosophy, 1, 2. Physics, 3.

Elective, 6 hours a week, which must include French or German.

SENIOR YEAR.

Chemistry, 3; or Mathematics, 9, 10.
Physics, 4, 5, or 6. Political Philosophy, 4.

Elective, 8 hours a week, which must include French or German.

## Examinations.

At the end of each term, examinations of all the classes of all the Schools are held in the studies of that term.

The results of the Term Examinations are combined with those of the daily recitations and attendance of the student during the term, in order to ascertain his academic standing at the end of that term.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and, in default of doing so, shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for degrees are concluded three weeks before the date of the Annual Commencement, that time may be given to Professors for the inspection of written examination papers, and to

students for the preparation of parts to be performed on Commencement Day by the successful candidates, to whom public parts on that day may be assigned by the Faculty.

Examinations for prizes are concluded three weeks before the end of each scholastic year.

### Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as rewards of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, annually awarded to the two successful competitors, in a public contest. These prizes are awarded by a committee selected by the Faculty for this purpose and are publicly delivered at the Annual Commencement.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the two best scholars in Pure and Applied Mathematics.

Professor Munroe offers a gold medal to that student from the Washington High School who shall attain the highest mark in Chemistry among those passing the entrance examinations to the Columbian College.

### Prizes in 1894–'95.

Staughton Prize, Mabel W. Baker, District of Columbia.
Ruggles Prize, George R. Davis, Maine.
Debater's Prize in the Enosinian Society, C. Le Roy Parker, New York.
Gore Prize in Parliamentary Law, E. A. Playter, Iowa.

### Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the Degree of Bachelor of

Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

Philosophical, Classical, Scientific, Metaphysical, Ethical, Historical, or Literary Orations may be awarded to students who are eminent respectively in the corresponding Departments.

All the degrees of the College are publicly conferred on Commencement Day.

Prizes for special excellence in any Department are publicly delivered on the same day.

## Public Worship.

Brief devotional exercises, which all students are expected to attend, are held daily in the College Chapel.

## Library Hours.

The College Library is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 6 to 10 p. m., for study and inquiry, as well as for the distribution of books. A reading-room, provided with the leading reviews, periodicals, and newspapers, is maintained by the Alumni for the use of students and graduates.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for research in any special line of studies.

During the present session a number of additions have been made to the Library, the most important of which was the munificent donation of Mrs. Catharine C. Emmerich, of Washington. This collection includes many valuable historical works, and books treating of early travels and discoveries in North and South America. This library—a memorial to her son, Lieutenant Emmerich, United States Navy—is especially welcome at this time, when the University is materially broadening the departments of history and political philosophy.

## Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly for the purpose of improvement in Debate and Composition.

## Lectures.

Courses of Lectures in Literature, Art, and Science are organized every year by the authorities of the University. These lectures are open to all the classes, and to the public, on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Hall of the University, are open to all students of the University.

Mention of lectures delivered during the present session is made elsewhere in this catalogue.

## General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all studies, including a record of absences from lectures, recitations, or other public exercises of the College, will be rendered periodically to parents or guardians.

The daily recitations of the College classes are brought, as far as practicable, into the early portion of the day. The advantages of attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

## College Expenses.

| | |
|---|---|
| 1. Admission Fee (paid but once, on entrance) | $10 00 |
| 2. Tuition for the year in three or more Schools | 100 00 |
| 3. Tuition for the year in two Schools | 70 00 |
| 4. Tuition for the year in one School | 50 00 |
| 5. Laboratory work in Chemistry, 2 and 3 (material) each | 10 00 |
| 6. Final Diploma Fee | 10 00 |

These charges cover all expenses.

Bills are payable semi-annually, in advance.

## Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Academy and four in the College, is annually conferred on the best scholar in the Washington High School. Students on this foundation pay semi-annually, in advance, a fee of eight dollars.

A recent ordinance of the Corporation increases the number of scholarships by six, to be distributed annually among the High Schools of Washington, the successful candidates being determined by a competitive examination held on the first Saturday in June of each year at the University. Holders of these scholarships pay semi-annually, in advance, a fee of eight dollars.

The Carter Scholarships, founded by Mrs. Mary M. Carter in memory of her husband, Henry Harding Carter, the well-known civil engineer, consist of the income from five thousand dollars. This sum is to pay the tuition of worthy young men who need assistance while preparing for the civil engineering profession.

## Rooms and Board.

Desirable rooms, convenient to the University buildings, are obtainable at $5 to $15 per month, and good board is offered at $15 to $20 per month. Lists of eligible boarding-houses will, upon request, be furnished by the Secretary and Treasurer of the University.

For further information concerning the Columbian College, application may be made to

ANDREW P. MONTAGUE, *Dean*,
*The Columbian College, Washington, D. C.*

## SCHEDULE OF RECITATIONS FOR THE SESSION OF 1896–'97.

| | Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|---|
| Freshman. | 9.15–10.10 | Mathematics. | Mathematics. | Mathematics. | Latin. | Mathematics. |
| | 10.10–11.05 | Physics. | Greek; Physics. | English. | Greek; Physics. | Latin. |
| | 11.05–12.00 | Chemistry. | History. | Latin. | Chemistry. | French. |
| | 12.15– 1.15 | Political Philosophy, Elective. | French. | Chemistry. | English. | Greek. |
| | 1.15– 2.15 | German. | English. | German. | German. | |
| | 2.15– 3.15 | Spanish. | | Spanish. | | |
| Sophomore. | 9.15–10.10 | Latin. | English. | Latin. | German. | French. |
| | 10.10–11.05 | Physics (A. B.). | Physics (A. B.). | Mathematics. | Physics (A. B.). | Greek; Physics. |
| | 11.05–12.00 | Chemistry. | Mathematics. | English. | Chemistry. | Latin. |
| | 12.15– 1.15 | English. | German. | Chemistry. | Greek Physics. | Mathematics. |
| | 1.15– 2.15 | Greek; Physics. | French. | French. | History. | German. |
| | 2.15– 3.15 | History, Elective. | Spanish. | Political Philosophy, Elective. | Spanish. | |
| Junior. | 9.15–10.10 | German. | Philosophy. | German. | English. | Political Philosophy. |
| | 10.10–11.05 | Latin. | Political Philosophy. | Latin. | Latin. | German. |
| | 11.05–12.00 | Philosophy. | French. | Greek; Physics. | Philosophy. | Mathematics. |
| | 12.15– 1.15 | History. | Greek; Physics. | Mathematics. | French. | Philosophy. |
| | 1.15– 2.15 | English. | Latin, Elective; English, Elective. | Political Philosophy. | | Greek; Physics. |
| | 2.15– 3.15 | Mathematics. | English. | French. | History; English, Elective. | History, Elective; Latin, Elective. |
| Senior. | 9.15–10.10 | Philosophy. | Political Philosophy. | Political Philosophy. | Philosophy. | Latin. |
| | 10.10–11.05 | Political Philosophy. | Philosophy. | Greek; Physics. | Political Philosophy. | Philosophy. |
| | 11.05–12.00 | Latin. | German. | Political Philosophy. | Mathematics. | German; Lab. Phys. |
| | 12 15– 1.15 | Mathematics. | English; Lab. Phys. | French. | Political Philosophy. | English. |
| | 1.15– 2.15 | Political Philosophy. | History. | English. | French. | History. |
| | 2.15– 3.15 | Political Philosophy; Lab Chemistry. | French. | Philosophy, El; Lab. Chemistry. | Political Philos., El.; Lab. Chemistry. | German. |
| | 3.15– 4.15 | Political Philos., El.; German, El. | Political Philosophy, Elective. | Mathematics, El.; English, El. | History, El.; French, El. | |

## Students.

CANDIDATES FOR DEGREES.

Fauntleroy Barnes.....D. C....600 Twentieth Street, N. W.
J. William Beatty.....Kan....631 Second Street, N. W.
Helen Ruth Biddis.....Pa.....Eckington, D. C.
Florence Lorraine Bingham....D. C....Garrett Park, Md.
Frank Lee Biscoe.....D. C....813 Twenty-first Street, N. W.
Florence E. Bowman.....Pa.....Anacostia, D. C.
Elise Bradford..... R. I....1522 P Street, N. W.
Edmund K. Broadus.....Va.....915 French Street, N. W.
Bronson C. Buxton.....Va..... 3102 N Street, N. W.
Mary K. Chapin.....D. C....417 Q Street, N. W.
Reed Paige Clark.... .....N. H...1424 Eleventh Street, N. W.
Thatcher Clark .....N. Y....1628 Riggs Place, N. W.
Paul Cockerille .....D. C....1338 New York Avenue, N. W.
De Witt Clinton Croissant.....D. C....821 North Carolina Avenue, S. E.
E. Kendall Cutter.....D. C....1522 K Street, N. W.
Zelma Davis.....Cal.....1203 Rhode Island Avenue, N.W.
Elliott J. Dent.....Pa..... Springland, D. C.
Taylor B. Dixon .....D. C....1421 Twenty-ninth Street, N. W.
Harry Hampton Donnally.....Va.....511 B Street, N. E.
Lida Draper..... .....D. C....1729 New Jersey Avenue, N. W.
William Lowry Farnham.....D. C....1103 M Street, N. W.
Joseph Finckel..... .D. C....1319 S Street, N. W.
Donald C. Fugitt.....D. C ...1212 K Street, N. W.
Anna E. Fussell.....N. J....2218 Washington Circle, N. W.
George W. Gordon.. .....D. C....Kendall Green, D. C.
G. Emery Green.....Mass...1123 Seventeenth Street, N. W.
Harry S. Greene.....Vt.....1320 Q Street, N. W.
Mortimer B. Hall .....D. C....1444 N Street, N. W.
Quirof Harlan.....Md.....1229 Tenth Street, S. E.
Rolvix Harlan.....Md.....1229 Tenth Street, S. E.
Mary Squire Hinman.....Ohio....30 Sixth Street, S. E.
G. Carroll Hoover. .....Pa.....63 R Street, N. W.
Robert L. Jenkins.....Tenn...1507 Vermont Avenue, N. W.
H. May Johnson..... D. C....5 Grant Place, N. W.
Fred. Cragin Jones.....D. C....946 F Street, S. W.
Mary Isabel Kelly.....D. C....228 A Street, S. E.

| | | |
|---|---|---|
| Anna Campbell Kelton | Cal | 1841 R Street, N. W. |
| Eleanor Annie Lamson | D. C. | Anacostia, D. C. |
| W. D. McCurdy | Md. | Anacostia, D. C. |
| Ruth McGowan | Mich | 1443 Staughton Street, N. W. |
| Elsie Madeleine McKelden | D. C. | 724 Fifth Street, N. E. |
| Marie Christie McKelden | D. C. | 724 Fifth Street, N. E. |
| Harry C. Macatee | Va. | 3 Thomas Circle, N. W. |
| Russell B. Main | Mass | 2009 Massachusetts Avenue, N. W. |
| William S. Manning | W. Va. | 2002 Fourteenth Street, N. W. |
| Selma M. Mason | Va. | 1706 F Street, N. W. |
| Gertrude E. Metcalf | Me. | 1631 Marion Street, N. W. |
| William Mitchell | Wis. | 32 B Street, N. E. |
| Henrietta Camille Morrison | D. C. | 1009 Massachusetts Avenue, N. E. |
| Frances C. Newlands | Nev. | Chevy Chase, Md. |
| Lillian Pace | Va. | 1208½ N Street, N. W. |
| William E. Parson | D. C. | 309 New Jersey Avenue, S. E. |
| Conrad M. Patten | D. C. | 3033 P Street, N. W. |
| Stanton C. Peelle | D. C. | The Concord. |
| Edward Alfred Playter | Iowa | 1921 Sixth Street, N. W. |
| William Thompson Pollard | Va. | Alexandria, Va. |
| Elliott Coues Prentiss | D. C. | 1322 Yale Street, N. W. |
| Preston B. Ray | Md. | Forest Glen, Md. |
| G. Irving Raybold | D. C. | 820 North Carolina Avenue, S. E. |
| Charles Kilbourne Robinson | N. J. | 1607 S. Street, N. W. |
| Samuel H. Rogers, | Va. | 721 Eighth Street, N. W. |
| Grace Isabella Ross | Vt. | 77 L Street, N. W. |
| Roger Shaw | Md. | Rockville, Md. |
| W. Morgan Shuster | D. C. | 1408 Fifteenth Street, N. W. |
| H. H. D. Sterrett | D. C. | Springland, D. C. |
| Robert Sterrett | D. C. | Springland, D. C. |
| George E. T. Stevenson | N. Y. | Anacostia, D. C. |
| Hugh T. Stevenson | N. Y. | Anacostia, D. C. |
| C. G. Storm | Wis. | 9 K Street, N. E. |
| Albert R. Stuart | S. C. | 1226 Fifteenth Street, N. W. |
| James B. Stubbs | | 238 New Jersey Avenue, N. W. |
| H. Worthington Talbott | Md. | Rockville, Md. |
| Joseph G. Tyssowski | D. C. | 1431 Rhode Island Avenue, N. W. |
| Wilbur W. Underwood | D. C. | 1107 N Street, N. W. |
| Clara Mary Upton | D. C. | 406 Spruce Street, N. W. |
| Elinor Wilson | D. C. | 1439 Massachusetts Avenue, N. W. |

## Special Students.

| | | |
|---|---|---|
| Hortense Alexander | Texas | 1217 M Street, N. W. |
| J. Henry Altschu | D. C. | 1334 G Street, N. W. |
| Robert S. Barrett, Jr | Va. | 2213 Washington Circle, N. W. |
| Charles M. Beall | D. C. | 1626 Fifteenth Street, N. W. |
| Edward Abbot Beard | D. C. | 1305 N Street, N. W. |
| William Henry Beard | D. C. | 1305 N Street, N. W. |
| Lorenzo S. Brown, Jr | Va. | 1627 Q Street, N. W. |
| Ralph Davol | | 918 Fifteenth Street, N. W. |
| G. W. Grandin | | 930 Sixteenth Street, N. W. |
| Jessie May Harwood | Mass. | 933 French Street, N. W. |
| Ralph W. Hills | Ohio. | 1345 Vermont Avenue, N. W. |
| Charles G. Hoffman | D. C. | 222 E Street, N. W. |
| Frances M. Jacobs | D. C. | 1327 Eleventh Street, N. W. |
| Caroline L. McCullough | | 1714 I Street, N. W. |
| Sandol H. Millikin | Tenn. | 1012 Twelfth Street, N. W. |
| Janet Newlands | Nev. | Chevy Chase, Md. |
| Katie Quinn | Ohio. | 2422 K Street, N. W. |
| Sue Fite Ramsey | Miss. | 432 Sixth Street, N. E. |
| Georgie Sanderlin | N. C. | 1008 N Street, N. W. |
| Fred. A. L. Schade | Va. | 24 Grant Place, N. W. |
| O. C. Stine | Ill. | 213 C Street, N. W. |
| Dennis Walker | D. C. | 418 B Street, N. E. |

# THE CORCORAN SCIENTIFIC SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

JAMES H. GORE, PH. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics and Secretary of the Faculty.

LEE DAVIS LODGE, PH. D.,
Professor of Philosophy and French.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, PH. D.,
Professor of Zoölogy.

CLEVELAND ABBE, A. M.,
Professor of Meteorology.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

HARRY KING, LL. B.,
Professor of Drawing.

GEORGE P. MERRILL, PH. D.,
Professor of Geology and Mineralogy.

ADOLPHUS W. GREELY,
Professor of Geography.

JOSIAH PIERCE, JR., M. A.,
Professor of Drawing and Applied Geometry.

ANDREW F. CRAVEN, PH. D.,
Professor of Economics.

LOUIS AMATEIS,
Professor of Fine Arts as Applied to Architecture.

EDWARD FARQUHAR, PH. D.,
Professor of History.

FRANK A. WOLFF, PH. D.,
Professor of Physics.

F. LAMSON-SCRIBNER, B. S.,
Professor of Botany.

GEORGE J. SMITH, PH. D.,
Professor of English.

J. C. HORNBLOWER,
Professor of Architecture.

HANS ZOPKE,
Professor of Mechanical Engineering.

C. F. MARVIN, M. E.,
Associate Professor of Meteorology.

ELMER S. FARWELL, C. E.,
Associate Professor of Mechanical Engineering.

HENRY SIMPSON,
Associate Professor of Architecture.

**Instructors and Assistants.**

FRANK L. AVERILL, C. E.,
Instructor in Engineering Field-work.

HENRY R. PYNE, A. M.,
Instructor in Latin and Greek.

MARATHON M. RAMSEY, A. M.,
Instructor in Romance Languages.

HERBERT L. RICE, M. S.,
Instructor in Astronomy.

PETER FIREMAN, PH. D.,
Instructor in Chemistry.

EMIL H. MEYER,
Instructor in Free-hand Drawing.

T. W. STANTON, A. M.,
Instructor in Paleontology and Stratigraphical Geology.

CLEVELAND ABBE, JR., A. B.,
Instructor in Physiography.

HARRY F. NEWCOMB, LL. M.,
Instructor in Statistics.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

FELIX FREYHOLD, C. E.,
Assistant in Iron and Steel Construction.

ERNEST L. THURSTON, C. E.,
Assistant in Drawing.

EDWARD A. MUIR,
Assistant in Machine Drawing.

JOSEPH S. MILLS, A. M.,
Assistant in Qualitative Analysis.

POWHATAN W. ROBERTSON,
Assistant in Accounting.

WILLIAM P. HAY, A. M.,
Assistant in Zoölogy.

CHARLES T. SEMPERS, A. M.,
Assistant in English and Director of University Extension.

H. GRANT HODGKINS, A. B.,
Assistant in Mathematics.

CHARLES E. McNABB, LL. M.,
Assistant in Business Law.

MINOTT E. PORTER, B. S.,
Assistant in Geography.

A. KLACKRING,
Assistant in Topographic Drawing.

THOMAS H. KEARNEY,
Assistant in Botany.

THOMAS J. T. FULLER, B. S.,
Assistant in Architecture.

ALFREDO V. GANO,
Assistant in Free-hand Drawing.

**Lecturers.**

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

H. CARRINGTON BOLTON, PH. D.,
Lecturer on History of Chemistry.

THOMAS M. CHATARD, PH. D.,
Lecturer on Chemical Engineering.

WORTHINGTON C. FORD,
Lecturer on Statistics.

GLENN BROWN,
Lecturer on Sanitary Engineering.

HON. JAMES H. ECKELS,
Lecturer on Finance.

CARROLL D. WRIGHT, LL. D.,
Lecturer on Social Statistics.

LESTER F. WARD, A. M.,
Lecturer on Sociology.

**Standing Committees of the Faculty.**

*Committee on Advanced Standing.*
Professors MUNROE, HODGKINS, and LODGE.

*Committee on Registration of Students.*
Professors MUNROE and HODGKINS.

*Committee on Library.*
Professors FAVA, FARQUHAR, and GORE.

*Committee on Examination Schedule.*
Professors FAVA, LODGE, and HODGKINS.

*Committee on Catalogue.*
Professors MUNROE and HODGKINS.

The School of Science established by the Trustees and Overseers of The Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin the Wednesday following the last Sunday in September (for 1896, September 30) and are held in the University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take special Courses in any of the Departments.

Candidates for admission to the First Year Course should be prepared in English Grammar, Rhetoric, French Grammar, American History, Algebra through Quadratic Equations, Plane Geometry, Elementary Chemistry, Elementary Physics, and the elements of Free-hand and Mechanical Drawing.

The following Courses of Study leading to the degree of Bachelor of Science are arranged to be completed in four years, but students otherwise engaged are granted a longer period in which to fulfill the requirements:

## COURSES OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

### FIRST YEAR.*

(Common to all Courses.)

†(3) Chemistry, 1, 6.
General Chemistry; History of Chemistry.

(2) Drawing, 1.
Mechanical and Geometrical Drawing.

(3) English, 1.
Rhetoric; English Literature.

(1) Fine Arts, 1.
Free-hand Drawing.

(2) Romance Languages, 1.
French.

(5) Mathematics, 1, 2.
Algebra; Geometry.

*Students in Course XII will take Course 2 in Fine Arts (Architectural Drawing) in addition to the above.

†The numbers in parentheses give the number of hours or periods per week; the numbers following the subjects refer to the special topics in the various Departments of the Corcoran Scientific School.

## COURSE I—GENERAL.

SECOND YEAR.

(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

Elective, eight hours a week.

THIRD YEAR.

(2) Geology, 1.
Systematic Geology.
(2) German, 2.

Elective, thirteen hours a week.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.

Elective, thirteen hours a week.

## COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

(4) Applied Mathematics, 2, 5.
Descriptive Geometry and Mechanics.
(4) Drawing, 2, 3.
Topographic.
(1) Engineering, 1, 15.
Surveying and Building Construction.
(1) Fine Arts, 2.
Architectural Drawing.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(8) Mechanical Engineering, 4, 5.
Machine Drawing and Construction of Machinery.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(3) Applied Mathematics, 6, 9.
Mechanics and Graphical Statics.
(1) Astronomy, 2.
Practical.
(2) Economics, 1.
Accounting.
(1) Fine Arts, 3.
Architectural Drawing.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(4) Engineering, 3, 4, 5, 13, 14.
(2) Mathematics, 5.
Calculus.

FOURTH YEAR.

(4) Applied Mathematics, 7, 8, 10.
Hydrodynamics; Strength of Materials; Mechanics of Machinery.
(2) Astronomy, 1.
General Astronomy.
(2) Economics, 2.
Business Law.
(4) Engineering, 7, 9, 10, 13, 14.
Structures and Materials of Engineering.
(1) Geodesy (1 term).
(2) Mathematics, 6, 7.
Differential Equations; Least Squares.
(2) Philosophy, 3.
Logic.
(3) Physics, 9, 12.
Laboratory and Inspection.

## COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(5) Mechanical Engineering, 4, 9.
Machine Drawing and Machine Problems.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(6) Physics, 1, 9.
General Physics; Physical Laboratory.

THIRD YEAR.

(3) Applied Mathematics, 6, 9.
Mechanics and Graphical Statics.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(4) Mechanical Engineering, 5.
Elements of Machines.
(7) Physics, 2, 3, 10, 13.
Electricity; Laboratory.

FOURTH YEAR.

(3) Applied Mathematics, 7, 8.
Hydrodynamics; Strength of Materials.
(2) Astronomy, 1.
General Astronomy.
(1) Chemistry.
Metallurgy of Iron.
(4) Mechanical Engineering, 6.
Designing.
(2) Philosophy, 3.
Logic.
(5½) Physics, 4, 5, 11.
Theory and Application of Electricity; Thermodynamics; Advanced Laboratory.

## COURSE IV—IN MECHANICAL ENGINEERING.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(5) Mechanical Engineering, 4, 9.
Machine Drawing; Machine Problems.
(2) Mineralogy, 1.
Descriptive.
(3) Physics, 1.
General.
(3) Physical or Chemical Laboratory.

THIRD YEAR.

(3) Applied Mathematics, 6, 9.
Applied Mechanics; Graphical Statics.
(3) Astronomy, 1.
Descriptive.
(2) Geology, 1.
Systematic.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(4) Mechanical Engineering, 4.
Machine Drawing.
(2) Philosophy, 3.
Logic.

FOURTH YEAR.

(3) Applied Mathematics, 7, 8.
Hydraulics; Strength of Materials.
(1) Chemistry.
Metallurgy of Iron.
(14) Mechanical Engineering, 5, 6, 7, 8.
Elements of Machines; Hoisting Machinery; Designing; Inspection.

## COURSE V—IN CHEMISTRY (A).

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mechanical Engineering.
Elements of Machine Drawing.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(12) Chemistry, 2, 6.
Quantitative Analysis.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.

FOURTH YEAR.

(15) Chemistry, 3, 5, 7.
Quantitative Analysis; Assaying; Organic Chemistry.
(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.

## COURSE VI—IN CHEMISTRY (B).

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(10) Chemistry, 2, 6.
Qualitative Analysis.
(2) Mathematics, 5.
Calculus.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(3) Physics, 2, 3.
Electricity.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(12) Chemistry, 3, 7.
Quantitative Analysis and Organic Chemistry.
(2) Mathematics, 6, 7.
Differentials and Least Squares.
(2) Philosophy, 3.
Logic.

## COURSE VII—IN MATHEMATICS.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(2) Civil Engineering, 1, 2.
Surveying.
(2) Drawing, 2.
Topographical Drawing.
(2) Romance Languages, 2.
French.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(2) Applied Mathematics, 6.
Analytical Mechanics.
(2) Astronomy, 1.
General Astronomy.
(2) Romance Languages, 3.
French.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(4) Mathematics, 5, 8, 9, 10.
Calculus; Determinants; Quaternions; Analytic Geometry of Three Dimensions.
(3) Physics, 9.
Laboratory Physics.

FOURTH YEAR.

(3) Applied Mathematics, 7, 8.
(3) Astronomy, 2, 3.
(2) English, 1.
American and English History.
(½) Geodesy, 1.
(2) German, 2.
(4) Mathematics, 6, 7, 11, 12.
Differential Equations; Least Squares; Theory of Equations; History of Mathematics.
(2) Philosophy, 3.
Logic.
(2) Physics, 2, 4.
Mathematical Theory of Electricity.

## COURSE VIII—IN METEOROLOGY.

SECOND YEAR.

(4) Applied Mathematics, 2, 5.
Descriptive Geometry; Mechanics.
(5) Chemistry, 10.
Laboratory, General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(2) Meteorology, 1.
Observational.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(2) Applied Mathematics, 6.
Analytical and Applied Mechanics.
(1) Astronomy, 2.
Practical.
(2) Botany, 1.
Systematic.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(2) Meteorology, 2.
Climatology.
(3) Physics, 9.
Laboratory.

FOURTH YEAR.

(1) Applied Mathematics, 9.
Hydrodynamics.
(2) Astronomy, 1.
General and Spherical Astronomy.
(1) Geodesy.
Projections.
(2) Mathematics, 6, 7.
Differential Equations; Least Squares.
(2) Meteorology, 3.
Special Topics.
(2) Philosophy, 3.
Logic.
(3) Physics, 10.
Laboratory.

## COURSE IX—IN GEOGRAPHY.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) Drawing, 2.
Topographic.
(2) German, 1.
(2) Geography, 1.
Physical.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(1) Astronomy, 2.
Practical.
(2) Botany, 1.
Systematic.
(4) Engineering, 3, 4, 6.
Surveying.
(2) Geology, 1.
Systematic Geology.
(2) Geography, 2.
Economic.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(2) Physics, 2, 6.
Electricity.

FOURTH YEAR.

(1) Applied Mathematics, 7.
Hydrodynamics and Hydraulics.
(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.
(½) Engineering, 10.
City.
(1) Geodesy.
(2) Mathematics, 6, 7.
Differential Equations and Least Squares.
(2) Meteorology, 2.
Climatology.

Elective, seven hours per week.

## COURSE X—IN GEOLOGY AND MINERALOGY.

SECOND YEAR.

(2) Botany, 1.
Structural and Systematic.
(2) Civil Engineering, 3.
Topographical Surveying.
(2) German.
(2) Mathematics, 3.
Trigonometry.
(3) Mineralogy, 1; Descriptive and Determinative, 2.
(3) Physics, 1.

THIRD YEAR.

(10) Chemistry, 2.
Qualitative Analysis.
(2) Geology, 1.
General.
(2) German.
(2) Mineralogy.
Determinative and Crystallographic.
(2) Zoölogy.

FOURTH YEAR

(2) Astronomy, 2.
General Astronomy.
(2) Drawing, 2.
Topographical Drawing.
(2) Economics, 7.
(2) Geology, 2.
Applied Geology.
(1) Meteorology, 2.
General Climatology.
(2) Philosophy, 3.
(1) Physiography, 1
(2) Paleobotany.
(2) Paleozoölogy.
(2) Special Lectures on Rock-weathering and Sedimentation, Field Methods, etc.

## COURSE XI—IN ARCHITECTURE.

### SECOND YEAR.

(4) Applied Mathematics, 2, 5.
Descriptive Geometry and Mechanics.
(3) Architecture, 1, 4.
History; Planning.
(2) Engineering, 2, 9, 15.
Use of Instruments; Construction.
(2) German, 1.
(1) Fine Arts, 3.
Architectural Drawing.
(1) Mechanical Engineering, 3.
Machine Drawing.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

### THIRD YEAR.

(6) Applied Mathematics, 3, 4, 9, 11.
Perspective; Stereotomy; Graphic Statics; Mechanics.
(4) Architecture, 2, 5, 7, 10.
History; Planning; Practice; Inspection.
(2) Economics, 1.
Accounting.
(3) Engineering, 16, 17.
Construction.
(2) Fine Arts, 4.
Composition.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.

### FOURTH YEAR.

(12) Architecture, 3, 6, 8, 9, 10.
History; Planning; Practice; Inspection; Heating and Ventilation.
(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.
(2) Economics, 2.
Business Law.

## COURSE XII—IN FINANCE AND ECONOMICS.

SECOND YEAR.

(4) Economics, 1, 7.
Accounting; Political Economy.
(2) German, 1.
(2) Geography, 1.
Physical.
(3) Mathematics, 3; 4.
Trigonometry; Analytic Geometry.
(1) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.
(4) Romance Languages, 2, 5.
French; Spanish.

THIRD YEAR.

(8) Economics, 2, 4, 5, 6.
Business Law; Statistics; Civics; Economic Development.
(2) Geology, 1.
Systematic Geology.
(2) Geography, 2.
Economic.
(2) German, 2.
(4) History, 1, 2.
American; English; Ancient.
(2) Philosophy, 1.
Physiological Psychology.
(4) Romance Languages, 3, 6.
French; Spanish.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(2) Botany, 1.
Systematic.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) Economics, 7.
Political Economy.
(2) German, 3.
(4) Philosophy, 2, 3.
Psychology; Logic.
(2) Romance Language, 7.
Italian.

## COURSE XIII—IN LANGUAGE AND LITERATURE.

SECOND YEAR.

(2) Economics, 7.
Political Economy.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
1, Mineralogy, 1.
Descriptive Mineralogy.
3; Physics, 1.
General Physics.

and any four languages which include English and French may be taken as the subjects in which the student is to do his work for the degree of B. S. In English the year is spent in the study of English Literature, 3. Instruction in other languages will include the following features:

(*a.*) Sight translation from the foreign language into English.

(*b.*) Thorough study of grammatical forms.

(*c.*) Critical study of syntax; historic explanation of idioms.

(*d.*) Copious exercises in composition.

(*e.*) Exercises in conversation and dictation.

THIRD YEAR.

(2) Botany, 1.
Systematic.

(2) Geology, 1.
Systematic Geology.

(2) Geography, 2.
Economic.

(2) German, 2.

and work in English, to consist of Anglo-Saxon (5) and a one-hour elective course. In other languages the instruction will embrace:

(*a.*) An extended course of reading so selected as to lift into bold relief the development of the great schools of literature which have arisen in each country whose language is studied.

(*b.*) Exercises in composition, conversation, and dictation.

(*c.*) The history of the language; studies in comparative philology.

(*d.*) The history of the people as written by themselves.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.

(2) Philosophy, 3.
Logic.

(5) Chemistry, 10, or Physics, 9.
Laboratory; General Principles.

The course in English for the year will be a critical study of the history of English literature in its great masterpieces, or an equivalent amount of elective work (three hours per week), with essays, historical, literary, and critical. The instruction in other languages will include:

(*a.*) Reading; writing of essays in the language; conversation.

(*b.*) The study of one of the most important epochs of the literature.

(*c.*) Students are required to write a thesis embodying the results of their study of the works of some great author.

(*d.*) Studies in comparative literature.

## SCHEDULE OF LECTURES AND RECITATIONS, 1895-'96.

| HOURS. P. M. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 4.30 to 5.30 | Advanced English<br>Building Construction.<br>Tall Buildings. | Statistics.<br>Architecture, IV. (4 to 5)<br>Architecture, I. (5 to 6.) | Advanced English.<br>Perspective and Shadows. | Mechanics of Construction. | Advanced English.<br>Building Construction.<br>Statistics.<br>Tall Buildings. | Zoölogy. |
| 6 to 7 | Calculus.<br>Geometric Drawing.<br>Greek, II.<br>Mineralogy. | Algebra.<br>Anglo-Saxon.<br>Architectural Drawing.<br>Astronomy.<br>Botany.<br>Engineering Topics.<br>Ethics.<br>Machine Drawing.<br>Spanish, I. | English Language.<br>German, I.<br>Heat Motors.<br>House Sanitation.<br>Latin, III.<br>Psychology, I.<br>Spanish, III.<br>Thermodynamics. | American Literature.<br>Analytic Geometry.<br>Chemistry, I.<br>Ethics.<br>Graphic Statics.<br>Trigonometry. | Analytic Geometry.<br>Botany, II.<br>French, I.<br>Geology.<br>Greek, I.<br>Physiography.<br>Spanish, I.<br>Trigonometry. | German, I.<br>Latin, IV.<br>Mechanical Drawing.<br>Spanish Conversation. |
| 7 to 8 | Analytic Geometry.<br>Business Law.<br>Chemistry, I.<br>Geography.<br>Geology.<br>Greek, I.<br>Heat Motors.<br>Italian.<br>Strength of Materials.<br>Thermodynamics.<br>Trigonometry. | Accounting.<br>Architectural Drawing.<br>Building Construction.<br>Botany.<br>Engineering Topics.<br>English Literature.<br>French, I.<br>Greek, I.<br>Machine Drawing.<br>Modern History.<br>Spanish, II. | Chemistry, I.<br>Elementary Mechanics.<br>Geography.<br>German, II.<br>Latin, IV.<br>Portuguese.<br>Psychology, II.<br>Shakespeare. | Botany.<br>Business Law.<br>Calculus.<br>Greek, II.<br>Italian, I.<br>Mechanical Drawing.<br>Physics, I.<br>Psychology, I. | Accounting.<br>Geometry.<br>Mineralogy.<br>Physiography.<br>Psychology, II.<br>Spanish, II. | Architectural Drawing.<br>German, III.<br>Latin, I.<br>Machine Drawing.<br>Portuguese. |

## SCHEDULE OF LECTURES AND RECITATIONS, 1895-'96—Continued.

| HOURS. P. M. | MONDAY. | TUESDAY | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 8 to 9 | Astronomy.<br>Civics.<br>Geometry.<br>Italian, II.<br>Machine Construction.<br>Physics, I.<br>Strength of Materials | Analytical Mechanics.<br>French, III.<br>History of Mathematics.<br>Least Squares.<br>Political Economy.<br>Rhetoric.<br>Solid Analytic Geometry.<br>Topographic Drawing. | Ancient History.<br>Engineering Topics.<br>French, II.<br>German, III.<br>Latin, I.<br>Latin-American History.<br>Mechanics of Machinery. | Astronomy.<br>Differential Equations.<br>Electricity.<br>French, III.<br>Italian, II.<br>Machine Drawing.<br>Political Economy.<br>Rhetoric.<br>Surveying. | Algebra.<br>Civics.<br>Descriptive Geometry.<br>Electricity.<br>English Literature.<br>French, II. | Free-hand Drawing.<br>German, III.<br>Latin, IV. |
| 9 to 10 | Algebra.<br>Economic Development.<br>Machine Construction.<br>Surveying. | Analytical Mechanics.<br>Finance.<br>Logic.<br>Topographic Drawing. | Ancient History.<br>Engineering Topics.<br>Machine Construction. | Economic Development<br>English Literature.<br>History of Mathematics.<br>Least Squares.<br>Machine Drawing.<br>Solid Analytic Geometry. | Descriptive Geometry.<br>Finance.<br>Logic. | |

"Chemistry, 10," a laboratory course, Tuesday, from 5 to 10 p. m.
The Laboratories (Botanical, Chemical, Geological, Mineralogical, and Physical) and Drawing Rooms are open every evening.
The full course in Assaying occupies three evenings a week for three months.

## DEPARTMENTS OF INSTRUCTION.

### Anthropology.

DR. MASON, Lecturer.

(See under head of "Graduate School.")

### Applied Mathematics.

(See Department of Engineering.)

### Architecture.

PROFESSOR HORNBLOWER, Head of Department.
MR. SIMPSON, Associate Professor of Architecture.
MR. BROWN, Lecturer on Sanitary Engineering.
Mr. FULLER, Assistant in Architecture.

1. History of Architecture, I, one hour.*
2. History of Architecture, II, one hour.
3. History of Architecture, III, one hour.
4. Original Planning and Design (second year).
5. Original Planning and Design (third year).
6. Original Planning and Design (fourth year).
7. Work in Architects' offices.
8. Heating and Ventilation, one hour, one term.
9. Sanitary Engineering for Architects, one hour, one term.
10. Inspection of buildings erected or in course of erection.

### Astronomy.

PROFESSOR WINLOCK, Head of Department.
MR. RICE, Instructor.

1. General Descriptive Astronomy. Three hours. Young's General Astronomy, with occasional Lectures.

Arrangements have been made for occasional visits to the New U. S.

* Unless otherwise stated, hours per week throughout the year.

Naval Observatory, so that students may be familiarized with the use of large telescopes.

2. Practical Astronomy, one hour.

3. Mathematical and Theoretical Astronomy, two hours.

Theory is taught mainly by Lectures, supplemented by the solution of problems and practical computations.

## Botany.

PROFESSOR SCRIBNER, Head of Department.

MR. KEARNEY, Assistant.

1. Structural and Systematic Botany.

The year will be devoted to general organography and morphology of flowering plants and the higher cryptogams, with brief outline review of the remaining groups. *Field excursions* will be given whenever practicable, and the student will be expected to become familiar with the determination of ordinary flowering plants and vascular cryptogams, and to be able to recognize the principal groups at sight. The student will also be instructed as to the proper manner of collecting and preparing plants for the herbarium and directed to begin the preparation of a local herbarium. Two hours.

Text-books: Gray's Structural Botany; Gray's Manual of Botany of the Northern United States.

Reference books: Ward, Guide to the Flora of Washington and Vicinity; Knowlton, Directions for Collecting Recent and Fossil Plants.

2. Histological and Physiological Botany.

The year will be devoted to lectures and laboratory work in histology and physiology. The cutting of sections and staining and mounting of botanical objects will be described and illustrated.

*The field excursions* will be continued and the study of the more difficult orders or genera of flowering plants, such as Compositæ, Graminæ, and Carex, will be taken up. Attention will also be given to the lower groups, as mosses, algæ, and fungi, and the important characters reviewed.

Each student will be required to collect, prepare, and mount an herbarium of one hundred species of local plants, which must be properly identified and classified. Two hours.

Text-book: Goodale's Physiological Botany.

Reference books: Bennett and Murray, Cryptogamic Botany.

## Chemistry.

PROFESSOR MUNROE, Head of Department.

DR. BOLTON, Lecturer on the History and Philosophy of Chemistry.

DR. CHATARD, Lecturer on Chemical Engineering.

MR. WHITEHEAD, Assistant in Assaying.

DR. FIREMAN, Instructor in Chemistry.

MR. MILLS, Assistant in Qualitative Analysis.

———, Assistant in General Chemistry.

1. General Chemistry, a series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Three hours.

Text-books: Barker's, Remsen's, and Bloxam's Chemistries.

2. Chemical practice and Qualitative Analysis, a laboratory course in the manufacture of chemical substances, the study of their properties and reactions, and of the means employed for their detection and identification. Twelve hours.

Text-books: Clowe's and Fresenius's Qualitative Analysis.

3. Quantitative Analysis, a laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Fifteen hours.

Text-books: Fresenius's and Thorpe's Quantitative Analysis.

4. Technical Analysis and Industrial Processes, a lecture and laboratory course in which the elements of chemical engineering will be taught, and special attention will be given to rapid commercial methods of analysis. Twelve hours.

Text-books: Hempel's Gas Analysis, Phillips's Engineering Chemistry, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious Metals, carried on by the methods used by the Government assayers, the laboratory being fitted up on the plan of that of the United States Mint. Twelve hours a week for three months.

Text-books: Brown's Manual of Assaying, Rickett's Assaying.

6. History and Philosophy of Chemistry, an illustrated lecture course offered gratuitously to all students in the Department and given at irregular intervals.

7. Chemistry of the Carbon Compounds, a laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Twelve hours.
Text-book: Cohen's Practical Organic Chemistry.

8. Modern Methods of Iron and Steel Analysis, a laboratory course for which a large amount of valuable material has been accumulated. For checking the work samples which have been analyzed by some of our most eminent specialists are available. Fifteen hours.
Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive Substances, a laboratory and field-work course in the preparation and in the study of the properties and methods of analysis of explosive bodies. Fifteen hours.
Text-book: Munroe's Chemistry of Explosives.

10. Experimental Chemistry, a laboratory course for the study of the principles of chemistry and the chemical properties of bodies. Five hours.
Text-book: Cooke's Laboratory Practice.

11. Advanced course in Organic Chemistry, Bernsthen.

12. Lectures on the Principles of Analysis.

Work completed in this Department is accepted as the equivalent of similar work required in the Columbian Medical School.

Special attention is paid in all courses to the methods of making notes. Students are given practice in making abstracts. All are required to consult the current periodicals and works of reference. Advanced students will prepare a bibliography on some special topic.

## Drawing.

PROFESSOR KING, Head of Department and Lecturer on Mechanical Drawing.
Mr. THURSTON, Assistant in Mechanical Drawing.
Mr. KLACKRING, Assistant in Topographic Drawing.

This Department has been organized for the special instruction and training of superior draughtsmen.

The course of instruction, in conjunction with those of the other departments of the School, will include all branches of drawing practiced in the departments of the Government, special attention being given to the technical character of Patent Office drawings as required by the rules of that office; to map-making and to lettering, and will consist in the main of practical demonstrations on the blackboard and on the individual drawing-board of the student.

1. Mechanical Drawing.
2. Topographic Drawing.
3. Topographic Drawing as Applied in Architecture.
4. Lettering as Applied to Topographic and Mechanical Drawings.

Each of these courses will occupy two hours a week and will be supplemented by practice.

## Economics.

PROFESSOR CRAVEN, Head of Department.
Dr. WRIGHT, Lecturer on Statistics.
Dr. WARD, Lecturer on Sociology.
Mr. FORD, Lecturer on Statistics and Finance.
Mr. ECKELS, Lecturer on National Banking.
Mr. ROBERTSON, Instructor in Accounting.
Mr. McNABB, Instructor in Business Law.
Mr. NEWCOMB, Instructor in Statistics.

### I.—FINANCE.

1. Advanced Accounting and Auditing.
   1st Term: Private, Individual, and Corporation Business.
   2d Term: Public, Official, and Municipal Business. Two hours a week.

2. Practical Business, Commercial and Banking Law:
   I.—Business Law in general:
      Principles on which it rests.
   II.—The Law of Contracts:
      *a.* Agency, Partnership, Corporations, Real Estate, Personal Property, etc.
      *b.* Commercial Paper:
         Rights and Duties of Parties to Bills, Notes, Drafts, and Checks.
   III.—Descent and Distribution of Property:
      Duties of Executors, Administrators, Trustees, Guardians, etc.
   IV.—Business Forms and Practice. Two hours a week.

3. The History and Science of—
   (1) Private Finance: Barter, Exchange, Money, Coinage, Credit and Banking. Two hours a week, 1897–'8.
   (2) Public Finance: In ancient, mediæval, and modern times. A comparison of the present systems of Germany, France, England, and the United States. Texts, Cohn and Bastable. Two hours a week, 1896–'7.

II.—POLITICS AND ADMINISTRATION.

4. I. Civics: Civil Government of the United States. Texts, Burgess and von Holst. Two hours a week, 1897–'8.
   II. Theories and Forms of Government: Ancient Greece and Rome; early Germanic Codes, and modern France, Germany, England, and the United States. Text, Bluntschli. Two hours a week, 1896–'7.

III.—POLITICAL ECONOMY.

5. Economic Development:
   (1.) History of economic growth among prehistoric peoples and among ancient, mediæval, and modern nations, to A. D. 1500. Two hours a week, 1896–'7.
   (2.) Modern Commercial and Industrial Development, with a study of recent economic changes and legislation. Two hours a week, 1897–'8.

6. Statistics: Financial, Commercial, Social, and Industrial. Two hours a week.

7. SPECIAL POLITICAL ECONOMY:

I. History of the Science of Political Economy, following the outlines of Roscher, Ingram, and Cossa. Two hours a week, 1897–'8.

II. 1st Term: Theoretical Political Economy and economic problems.

2d Term: Applied Political Economy; practical social questions. Text-book, Ward's Dynamic Sociology. Two hours a week, 1896–'7.

## Engineering and Applied Mathematics.

PROFESSOR FAVA, Head of Department.

MR. AVERILL, Instructor in Engineering Field-work.

MR. FREYHOLD, Assistant in Iron and Steel Construction.

MR. JOHNSON, Assistant in Applied Mathematics.

———, Assistant in Engineering.

———, Assistant in Topographic Surveying.

———, Assistant in Building Construction.

### APPLIED MATHEMATICS.

1. Elements of Applied Geometry, 1 hour.

2. Descriptive Geometry, parts I and II, and Geometry of Position, 2 hours, and Constructive Exercises, 6 hours. Reference: Fava, Warren, Church, Fiedler, Reye, etc.

3. Perspective and Shadows, 1 hour, and Exercises, 2 hours.

4. Stereotomy, 1 hour, and Exercises, 2 hours. Reference: Warren, Adhémar, etc.

5. Elementary Mechanics, 2 hours, second term.

6. Analytical and Applied Mechanics, parts I and II. Reference: Weisbach, Ritter, and Rankine, 2 hours.

7. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.

8. Strength of Materials and Theory of Elasticity, parts I and II, 2 hours. Reference: Same as 5 and 6, with Bresse, Collignon, etc.

9. Graphical Statics, parts I and II, 1 hour, and Designing Exercises, 2 hours. Reference: Culmann, W. Ritter, Du Bois, Koechlin, Fava, etc.

10. Mechanics of Machinery, 1 hour. Reference: Rankine, Reuleaux, etc.

echanics of Construction for Architects, parts I and II, 1 hour.

CIVIL ENGINEERING.

1. Land Surveying and Theory of Instruments, parts I and II, 2 hours, and Practical exercises and Field-work in the Spring.

2. Use of Surveying Instruments, for Architects, Mechanical and Electrical Engineers, 6 meetings in the Field.

3. Topographical Surveying, parts I and II, 2 hours, and Field Practice.

4. Railroad and Highway Engineering and Hydraulic Engineering (Canals, Rivers, and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises, 10 hours.

5. Engineering Field-work and Railroad Surveying, 16 meetings.

6. Hydrographic Surveying and Exercises, 1 hour, 1 term.

7. Masonry and Wooden Structures and Iron and Steel Structures, 1 hour, and Constructive Exercises, 15 hours.

8. Engineering Plant, 1 hour, and Sketching Practice.

9. Materials of Engineering and Metallurgy of Iron and Steel, 1 hour.

10. Water Supply, Sewerage, and Sanitary Engineering, 1 hour.

11. City Engineering, 1 hour, 1 term.

12. Municipal Engineering (Street Railroads and Lighting), for Mechanical and Electrical Engineers, 1 hour.

13. Discussion of Engineering Topics, weekly.

14. Inspection of actual work, fortnightly.

BUILDING CONSTRUCTION.

15. Building Construction, part I, 1 hour, and Constructive Exercises, 15 hours. Reference: Rivingtons, I and II; Burrel, Tutthill.

16. Building Construction, Specifications, and Working Drawings, parts II and III, 2 hours each, and Constructive Exercises, 10 hours.

17. Modern Tall Buildings, and the use of iron in buildings, 1 hour.

18. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises, 3 hours.

Constructive Exercises are carried on largely outside of the regular recitation hours.

## English.

PROFESSOR SMITH, Head of Department.
PROFESSOR FARQUHAR.
MR. SEMPERS, Assistant.

1. Practical Rhetoric. Text-book for reference: Genung. Frequent exercises in composition and criticism. Two hours a week.

2. History and Grammar of the English Language. Text-book: Meiklejohn. One hour.

3. English Literature, General History, followed by Lectures, Readings, and Essays. Text-book: Shaw's New History; subsequently, various selected texts. Two hours.

4. American Literature, course similar to 3. Text-book: Beers. One hour.

ELECTIVE COURSES.

5. Anglo-Saxon. Text-book: Bright's Anglo-Saxon Reader. One hour.

6. Chaucer. One hour, through the year.

7. Shakespeare's tragedies. One hour.

8. Bacon and Milton.

9. English Literature of the Eighteenth Century.

10. Poets and Prose-writers of the Nineteenth Century.

These courses are provided for those who elect the general plans or courses of study numbered I and XIV, but are open to others. The formation of classes in these courses depends upon the number of students applying.

11. Advanced general course in English Literature. Three hours.

12. English Composition.

## Fine Arts as Applied to Architecture.

PROFESSOR AMATEIS, Head of Department.
MR. MEYER, Instructor in Free-hand Drawing.

1. Free-hand Drawing. One hour.

2. Architectural Drawing. One hour. (The five orders.)

3. Architectural Drawing. One hour. (Application of the five orders.)

4. Practice in Designing Monuments, Building, etc., of different styles; also lectures on history of ornaments, painting, and sculpture.

Drawing-rooms are open to students for practice from 10 a. m. to 10 p. m. daily.

## Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy, 3d edition.

## Geography.

PROFESSOR GREELY, Head of Department.
MR. PORTER, Assistant.

The course of instruction will include Physical and Economic Geography. The methods followed will embrace compilations, collations, and investigations by the students, and courses of lectures by the professor. The latest text-books will be supplemented by the discussion of recent geographical data drawn largely from current scientific and statistical publications of the various Governmental bureaus in Washington.

I. Physical Geography: two hours. Especial attention will be given to such parts of the earth as by fauna and flora, by mineral and vegetable deposits, or by other favoring physical conditions, either contribute most largely or promise future advantages to human welfare. Among other subjects will be considered the material influence of climatic conditions and geological formations as factors in the development of natural resources; modifications and extensions of fauna and flora by human or natural agencies: discoveries of mineral, vegetable, and other deposits; transference of centers of population, industries, and commerce; improvements of natural and creation of artificial transportation routes, and other similar physical features related to human activities.

II. Economic Geography: two hours. The subjects specially studied bear on the most important factors connected with the development of agricultural and mineral resources, the extension and evolution of industrial methods, and their dependence on trade and commerce. The growth or decadence of the more important activities of countries or regions, transitions in industrial methods, modifications of commercial relations, the development of improved transportation routes, will be considered in their relations to each other and their effect on the future development of the world in general and the United States in particular.

## Geology and Mineralogy.

PROFESSOR MERRILL, Head of Department.
MR. STANTON, Instructor in Paleontology and Stratigraphical Geology.

1. Descriptive Mineralogy. Two hours a week for one term.
2. Determinative Mineralogy. Four hours a week for one term.

### GEOLOGY.

1. Systematic Geology; Geognosy; Dynamical, Structural, and Stratigraphical Geology. Two hours throughout the year. Text-book: Leconte's Elements of Geology.

2. Economic Geology. Two hours throughout the year. Text-books: Kemp's Ore Deposits of the United States, Merrill's Stones for Building and Decoration.

Mineralogy is taught as introductory to geology. The course is therefore designed with especial reference to minerals as rock constituents or as segregated in ore deposits. So far as possible, the course is practical and includes a study of the ores of the base and precious metals and their associates, and the non-metallic minerals, as the natural salts and the hydrocarbon compounds. Opportunity is given the student to become familiar with blowpipe and qualitative methods of determination, and access is given to a varied collection showing the minerals not merely in their pure and well crystallized forms, but in massive and granular forms, associated with gangue products and other impurities as occurring in nature.

The Course in Geology consists of lectures, recitations, laboratory and field work. Opportunity is given the students in the laboratory, and, so far as hours will permit, in the field as well, to familiarize themselves with the appearance and general characteristics of rock masses. Text-book recitations are supplemented by lectures on the subjects of rock-formation by sedimentation, metamorphism, and vulcanology, and, so far as time allows, on the methods of study by means of the microscope and thin sections (micropetrology). Under the head of Applied Geology are considered, mainly by lectures and laboratory practice, the subjects comprised under, (first) mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (second) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, manganese, antimony, etc.; and (third) the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufactures; abrasive, re-

fractory, and fictile materials, mineral pigments, gems and ornamental stones, building stones, limes and cements, and mineral waters.

Paleontology is treated as a branch of geology, with special reference to its use in stratigraphy and correlation. As an introduction to the subject, representatives of the principal invertebrate types are studied. The successive faunas are then taken up, and the most characteristic forms are studied in connection with the distribution and stratigraphy of the sedimentary rocks of each period.

## German.

PROFESSOR SCHOENFELD, Head of Department.

1. Accurate training in elementary grammar (Otis); pronunciation and translation from English into German; exercise in conversation; readings from Anderson's Bilderbuch ohne Bilder, Storm's Immensee, and some easy German poetry. Two hours.

2. More extended course in German syntax and principal difficulties of the language, idioms, etc.; extensive translations into German; Gore's Science Reader, fourth edition; selected stories; Lessing's Minna von Barnhelm. Two hours.

3. Study of idioms, synonyms, and Sander's Hauptschwierigkeiten der deutschen Sprache; special preparation for scientific professional work: Helmholtz on Goethe's work in natural history (edition of Seidensticker): Du Bois-Raymond's Rectoratsreden; critical studies of German classics; lectures on German literature. Two hours.

A special course in German training for advanced students in History and Economics is offered. Schoenfeld's German Historical Prose and the standard works of German historians and economists will be read. Number of hours subject to arrangement.

## Greek.

MR. PYNE, Instructor.

1. White's Beginner's Greek Book; Xenophon's Anabasis, Book I. Two hours.

2. Xenophon's Anabasis, Books II and III; Goodwin's Greek Grammar (revised edition); Homer's Iliad, Books I, II, and III; Exercises. Two hours.

3. Homer's Iliad, Books IV, V, and VI; Herodotus (Seymour); Goodwin's Greek Grammar (revised edition); Exercises. Two hours.

4. Xenophon's Memorabilia; Isocrates' Panegyricus; Grammar exercises. Two hours.

Courses 1 and 2 do not count for a degree.

## History.

PROFESSOR FARQUHAR, Head of Department.

1. American and English History. Text-books: Fiske, Johnston, Airy, Green. Reference books: Bancroft, Adams, Von Holst, McMaster, Freeman, Macaulay. Two hours.

2. Ancient History. Text-books: Ragozin, Smith, Meyers, Merivale. Reference books: Bruysch, Rawlinson, Grote, Arnold, Mommsen. Two hours.

3. Mediæval History. Text-books: Church, Bryce. Reference books: Gibbon, Hallam, Guizot. Two hours.

4. Modern History. Lecture course. Two hours.

Instruction in this department will be given both by text-books and lectures. The method will be rational and comparative rather than precise and mechanical. The course of human progress and development, the growth of institutions and civilization will receive more emphasis than separate facts. The unequalled facilities for historical research afforded by the Capital of the Nation will be held in view of the classes, and essay-work required.

## Latin.

PROFESSOR MONTAGUE, Head of Department.

MR. PYNE, Instructor.

I. Collar and Daniell's First Latin Book; Lindsay's Cornelius Nepos. Two hours.

II. Lindsay's Cornelius Nepos; Cæsar; Harkness's Latin Grammar; Exercises. Two hours.

III. Cicero; Vergil; Harkness's Latin Grammar; Exercises. Two hours.

IV. Ovid; Livy; Harkness's Latin Grammar; Exercises. Two hours.

V. Horace, Odes and Satires; Cicero, De Amicitia; Tacitus, Germania and Agricola; Harkness's Latin Grammar; Exercises. Two hours.

VI. Juvenal; Pliny; Plautus; Terence. Two hours.

Courses I, II, and III are preparatory and do not count for a degree.

## Mathematics.

PROFESSOR HODGKINS, Head of Department.
MR. HODGKINS, Assistant.

(*A.*) Elementary Algebra: two hours. Bowser's College Algebra.

(*B.*) Plane Geometry: two hours. Wells's Plane and Solid Geometry (revised edition).

1. Algebra: three hours. Bowser's College Algebra.

2. Geometry: two hours. Wells's Plane and Solid Geometry (revised edition).

3. Trigonometry: three hours, first term. Wells's Plane and Spherical Trigonometry and Bowser's Treatise on Trigonometry.

4. Analytic Geometry: three hours, second term. Bowser's Analytic Geometry.

5. Calculus: two hours. Bowser's Calculus.

6. Differential Equations: two hours. Johnson's Differential Equations.

7. Least Squares: two hours, ten weeks.

A lecture course, with references to Merriman's Least Squares and Wright's Treatise on the Adjustment of Observations.

8. Determinants: two hours, ten weeks.

Weld's Determinants; Hanus's Determinants.

9. Quaternions: two hours, ten weeks.

Hardy's Quaternions.

10. Analytic Geometry of Three Dimensions: two hours, ten weeks.

11. Theory of Equations: two hours, ten weeks.

12. History of Mathematics.

Courses A and B are preparatory courses, intended for beginners, and do not count for a degree. It is expected that students entering courses 1 and 2 shall have studied plane geometry and through quadratic equations in algebra. But as a thorough and ready knowledge of these elements is so essential to a proper understanding and mastery of the subsequent courses, and as many who have not studied mathematics for some years wish to enter these classes, it has been customary to devote

the first part of the year to a careful but rapid review of some of the earlier parts.

Courses 7 to 12 are short lecture courses, and, while intended especially for students who wish only the elements of the subjects, serve as preparation for the advanced courses described under the Graduate School. Usually only three of these five courses will be given each year.

### Mechanical Engineering.

PROFESSOR ZOPKE, Head of Department.
MR. FARWELL, Associate Professor of Mechanical Engineering.
MR. MUIR, Assistant in Machine Drawing.

1. Elements of Projection. A drawing course in projections for beginners. Four hours.

2. The Elements of Machines. A course in working drawings for mechanical engineering students or for special students. Four hours.

3. The Elements of Machine Drawing. A course for civil engineering and architectural students. One hour.

4. Machine Drawing. A drawing course for the representation of machine parts and machines for mechanical and electrical engineering. Four hours for two years.

5. The Elements of Machines. Theory and construction of the elements of machines for mechanical and electrical engineering. Four hours.

6. Designing of Elements of Machines and of Simple Machines for mechanical and electrical engineering. Six hours.

7. Hoisting Machinery for mechanical engineering. 1 term. Two hours.

8. Designing of Hoisting Machinery for mechanical engineering. 1 term. Two hours.

9. Investigation of Fundamental Machine Problems for mechanical, electrical, and civil engineering. Two hours.

### Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the states of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opin-

ions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continued references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours.

2. Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*. Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours.

3. Logic, Deductive and Inductive. Text-books: Jevons, Fowler; lectures, with frequent references to Whately, Hamilton, Thomson, and Mill. Special care is taken to develop the psychological bases of logical rules. Two hours.

4. Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous examination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours a week.

## Meteorology and Its Applications.

PROFESSOR ABBE, Head of Department.
PROFESSOR MARVIN, Associate Professor.
MR. ABBE, Instructor in Physiography.

The courses in Meteorology are designed to give a complete review of the present condition of that science, and they are necessarily extended through five years, but the lectures are so arranged that each of the five divisions is complete in itself. Each course presents a detailed view of its branch of the subject, such as may be desired by students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

Students who intend to present themselves for the degree of Ph. D. in Meteorology must pursue all five courses.

In addition to the Lectures the professor will devote one hour a week to a quiz class, in which, by questions and answers, he will seek to remove any difficulties that remain.

The first three years of the complete course in Meteorology is pursued in the Corcoran Scientific School during the second, third, and fourth years of the courses of study that lead to the degree of B. S. in Meteorology.

Physiography as a branch of Geology is assigned to the department of Meteorology as being that special application of Climatology to Geology whereby the history of the formation of the surface of the earth is explained.

1. OBSERVATIONAL METEOROLOGY.—Personal diary of the weather; general methods of observing without instruments; the rain gauge; the thermometer; the barometer; the nephoscope; the anemometer; hygrometry; actinometry; self-registering apparatus; observations in balloons; observations on mountain stations; meteorological expeditions by land and sea; forms for record; methods of computation of means and normals; graphic methods of presenting results. Two hours.

2. GENERAL CLIMATOLOGY.—Elements of climate; general distribution over the earth of sunshine, temperature, moisture, pressure, wind, clouds; diurnal, annual, and secular periodicities; variability of local climates; empirical relations between the winds and the other elements; the absorption of radiations by the atmosphere; the theory of probabilities as used in climatology; the computations of the coefficients of the Bessel-Fourier

equation; the climatic features of areas of high and low pressure; the relations between ocean currents and the atmosphere; solar and lunar tides; the constituents of the atmosphere and their variations; atmospheric dust; atmospheric moisture; climatic characteristics of oceanic, continental, and littoral regions; sensible temperatures; constitution of the atmosphere as affected by plants, animals, altitudes, and the ocean; influence of snow, swamps, and forests. Two hours.

3. Special Subjects in Meteorology and Climatology.—Optical phenomena: (*a*) atmospheric refraction, reflection, and dispersion; (*b*) twilight; (*c*) scintillation; (*d*) blue light of the sky; (*e*) polarization of skylight; (*f*) haloes, glories, and coronas; (*g*) rainbows; (*h*) parhelia; (*i*) red and green suns.

Thermal phenomena: (*a*) selective absorption; (*b*) the bolometer and bolograms; (*c*) radiation from the dust and vapor; (*d*) convection and conduction of heat.

Acoustic phenomena: (*a*) refraction and reflection of sound; (*b*) fog signals; (*c*) thunder; (*d*) meteorite explosions.

Electrical phenomena: (*a*) atmospheric potential; (*b*) the theory of Exner and Trabert; (*c*) the lightning flash; (*d*) auroral light; (*e*) diffuse discharges on mountain tops and within snow-storm clouds.

Climate and geology: (*a*) morphology of the earth's surface; (*b*) the atmosphere and ocean; (*c*) climates and geological ages; (*d*) physiography of recent geologic times; (*e*) glacial epoch; lessons from the migrations of birds and the distribution of mammals, fishes, and plants.

Climate and vegetation: (*a*) phænology; (*b*) acclimatization; (*c*) geographic distribution of plants; (*d*) frosts and droughts; (*e*) electroculture; (*f*) climate and crop statistics.

Climate and anthropology.

Climate and hygiene: (*a*) warming and ventilation; (*b*) humidity and sensible temperatures; (*c*) longevity, mortality, and disease.

Climate and engineering: (*a*) hydraulics of rivers; (*b*) prediction of floods; (*c*) wind pressure and strength of buildings; (*d*) wind and windmills; (*e*) solar motors; (*f*) wind and sailing vessels; (*g*) rainfall, evaporation, and irrigation; (*h*) flying and aërial navigation.

Climate and manufacturing industries: (*a*) *drying and curing*, operations in preserving fish, meat, fruit, and the manufacture of paper, salt, etc.; *bleaching*, in the manufacture of cotton and linen; *humidity*, in the spinning of silk, cotton; the harvesting of ice.

Atmospheric dust in relation to rain, geology, vegetation, hygiene,

manufactures. Montgomery J. Storm's Steam-engine and Barnes's Cloudy Condensations.

The relation of the atmosphere to ordnance operations. Two hours.

4. PHYSIOGRAPHY OR ELEMENTARY PHYSIOGRAPHIC GEOLOGY.—This course is meant to supplement a course in Elementary Geology, and deals with the origin and development of the forms of the earth's surface. This subject includes the life histories of rivers, lakes, mountains, plateaus, plains, coast lines, continents, islands, etc., and a classification of these different features both with reference to all these classes and to each class as such. Consideration is also given to topographic forms in their relation to climate and to human occupation.

Although an elementary knowledge of geology is necessary for the best understanding of the subject of physiography, the lack of this need not be a bar to entering the course, as complete explanations of geological points will be made when wanted.

The course will occupy two hours a week, one hour being devoted to a lecture, and the second hour (immediately succeeding the lecture if possible) will be taken up in examination and study of the maps, charts, photographs, and models.

If possible, there will be occasional field-lectures in place of laboratory work, when various points in the neighborhood of Washington will be visited and the important features of the local topography pointed out.

## Physics and Electrical Engineering.

PROFESSOR WOLFF, Head of Department.

1. General Physics, three hours. First term: Mechanics, Sound, and Heat. Second term: Light, Electricity, and Magnetism. Text-books: Physical Series, Cambridge Science Manuals.

This course will be fully illustrated by experiments, and practical physical measurements will be made before the class.

2. Elementary Mathematical Theory of Electricity. Three hours a week for one term. Text-book: Thompson's Electricity and Magnetism.

3. Dynamo-electrical machinery. Three hours a week for one term. Text-book: Hawkins and Wallis, The Dynamo.

4. Advanced Mathematical Theory of Electricity. Two hours a week for one term. Lectures based on Gerard and Emtage.

5. Dynamo-electric Machinery. Advanced course. Two hours, one term. Text-book: S. P. Thompson, Dynamo-electric Machinery.

6. Technical Applications of Electricity. Two hours a week for one term.

7. Advanced Physics. A mathematical course to acquaint the student with the methods of mathematical physics, and an introduction to more advanced courses in the Graduate School.

8. Physical Chemistry. A short course with special reference to the modern theories of solutions.

9. Physical Laboratory. Three hours. The exercises will include the fundamental measurements and experiments in all branches of Physics. Sabine's Laboratory Manual or Glazebrook's Text-books will be followed.

10. Advanced Laboratory Work. Three hours.

This will include such experiments as those described in the laboratory manuals of Glazebrook and Shaw, Stewart and Gee, and Nichols.

11. Laboratory experiments on testing dynamos and motors and determining their characteristics, etc. Six hours.

12. Inspection of electric plants. In and around Washington are a number of electric-lighting and street-railway plants which afford students of electrical engineering an excellent opportunity of familiarizing themselves with a large number of types of electric machinery.

13. Critical inspection of power plants, followed by a class discussion of the same.

Occasional meetings will be held at which papers on special subjects will be read by advanced students. All interested will be welcome at these meetings.

No regular course in shop-work will be offered at present, but a turning lathe and other tools will be provided, and laboratory students who so desire may familiarize themselves with their use by the construction of various pieces of physical apparatus, plans of which have been prepared.

## Romance Languages.

PROFESSOR LODGE, Head of Department.

MR. RAMSEY, Instructor in Spanish, Italian, and Portuguese.

### THE FRENCH LANGUAGE.

1. The whole course is especially adapted to scientific students. The class is drilled in French pronunciation, grammar, and composition; exercises in conversation. After some easy French by way of introduction, Histoire d'un Conscrit is read. Van Daell's introduction to the French Language is used. Two hours.

2. Critical study of Syntax; composition; dictation. Le Cid, Histoire du Peuple Français, Andromaque, Bug-Jargal, and L'Avare are read. The "Revue Scientifique" is also used instead of a text-book during a part of the year. Two hours.

3. Study of idioms; frequent recitations in French; Composition of French essays; Conversation; Lectures on the development of the French language and literature; selections from De Staël, Hugo, Lamartine, Souvestre, Sandeau, and Scribe. Two hours.

4. A special course in reading, composition, and conversation is offered for students in Course 7 of the Department of Economics. The books read are the standard treatises of the French Political Economists. Periodical economic literature is also read in class. Four hours.

SPANISH.

5. The class is drilled in pronunciation, in hearing the spoken language, and in writing from dictation. The essentials of the grammar are presented, accompanied by practice in reading and conversation. Two hours.

6. More extended presentation of the grammatical structure of the language. Critical and comparative study of syntax and idioms. History and development of the Castilian language and literature. Exercises in literary composition. Reading from standard works of modern Spanish and Spanish-American authors. Two hours.

Text-books: Ramsey's Text-book of Modern Spanish; El Lector Americano, No. III, and Spanish text to be selected as required.

The course has special reference to the rapidly increasing intercourse between the United States and the Spanish-American Republics, and as much attention as possible is given to the customs, usages, resources, and products of those countries.

ITALIAN.

7. The class is drilled in pronunciation, in hearing the spoken language, and in translating the exercises of the text-book. After the rudiments of the grammar have been mastered the class is led at once to the reading of the easier prose authors, ending with the "Alberto" of De Amicis. Two hours.

8. Further study of the grammatical construction and the principles of syntax and style. History and development of the Tuscan language and literature. Selections from Dante Alighieri, Petrarca, Boccaccio, Boiardo, Ariosto, Tasso, Goldoni, Pellico, and Manzoni. Two hours.

Text-book: Cuore's Italian Grammar.

PORTUGUESE.

9. A course covering one year, for students who have completed Spanish 1 and French 1 (or have made equivalent progress in both languages). The phonology, grammatical structure, and syntax are studied with particular reference to their analogies to Spanish and French, combined with exercises in composition and the reading of a text. Two hours.

Text-book: Elwes's Portuguese Grammar.

HISTORY OF LATIN AMERICA.

10. *a*, The period of discovery, conquest, and colonization. *b*, The struggles for independence. *c*, The era of progress. *d*, Literature and education in Latin America. One hour.

Portions of various works are assigned for reading outside of the classroom.

## Slavonic Languages.

PROFESSOR SCHOENFELD, Head of Department.

An introductory course in the Polish language and literature is offered, as the first and richest among the Slavonic tongues, to be followed by Bohemian in the next scholastic year.

1. A Survey of the Polish Grammar, its phonetic laws, its position among the other languages of the Indo-European family, will be given. Reading of easy prose and poetry.

2. Syntactical structure of the Language, its history and foreign elements. Extracts from Mickiewicz's and Kraszewski's master works will be read. A collection of Polish national songs and legendary poetry will be studied.

These courses are introductory to a future graduate department in the Slavonic languages. Students will consult Morfill's Story of Poland, Geschichte von Polen, Prof. Carvand, Prof. Röppell, and Dr. Schoenfeld's work on "Higher Education in Poland" (U. S. Bureau of Education); his articles on Slavonic literatures in Johnson's Universal Cyclopædia, and his essays on the "Partition of Poland" and "Polish Elements in German Literature."

## Zoölogy.

PROFESSOR GILL, Head of Department.
MR. HAY, Assistant.

1. Elements and General Principles of Zoölogy, Packard. Two hours.
2. Natural History of Invertebrates. Two hours.
3. Natural History of Vertebrates. Two hours.

## Mechanical Laboratory.

A laboratory has been fitted with benches and tools so as to enable students in Chemistry, Physics, and Engineering to construct apparatus needed in their experimental work and researches.

## University Library.

The Library is open every day until 10 o'clock p. m. for purposes of study and inquiry, and is supplied with the leading reviews and periodicals.

## University Lectures.

Students of the Corcoran Scientific School are admitted without further fee to the University Lectures; and, when qualified to profit by them, they can secure admission to lectures, other than the law lectures, given in the University Hall, by applying to the Dean.

## Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least three weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least two weeks before the date of commencement."

"Examinations for *prizes* in each of the said Departments shall be closed at least three weeks before the end of the scholastic year, and the names of the successful candidates for either shall be reported at least two weeks before the date of commencement."

## Requirements for Degrees.

A definite value or weight is assigned to the subjects taught, the unit being, in general, *one recitation a week for a year*, with a satisfactory examination sustained at the close; but this weight varies for laboratory, designing, and field work.

The degree of Bachelor of Science is conferred upon a student who successfully completes one of the full courses offered or other equivalent course, aggregating not less than sixty-eight units, which has been approved by the Faculty.

## Scholarships.

*Mary Lowell Stone Scholarship*, founded as "a memorial to a woman student of science, from a woman, for women students of science," consists of a fund of two thousand dollars, the income from which "is to be paid to needy women, students in the Corcoran Scientific School of the Columbian University, at the discretion of the Dean of said School."

*Edward T. Fristoe Scholarship*, founded in memory of the first Dean and Professor of Chemistry of the Corcoran Scientific School, consists at present of a fund of three hundred and fifty dollars, the income from which may be paid to some deserving student of chemistry at the discretion of the Dean.

*Robertson Scholarship in Accounting*, established by Mr. P. W. ROBERTSON during the past year, is awarded on competitive examination, and entitles the holder to free tuition for one year in this subject.

## Loan Collection of Text-books.

Through the generosity of Mrs. SUSAN MOORE a collection of text-books has been provided, to be loaned to indigent students at the discretion of the Dean.

## Prizes.

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

FAVA PRIZE.—To stimulate students in Engineering, prizes are offered by Francis R. Fava, Jr., Professor of Engineering, to students who at-

tain certain standards in the following branches in the several years of the course:

1. Designing problem in Building Construction (2d year); 2, Report on the Engineering Work with which the student has been connected during his vacation (3d year); 3, Investigation in Graphical Statics (4th year); 4, Degree Work.

Prizes 1 to 3 consist of valuable Engineering works, and Prize 4 of a medal.

SCHMIDT PRIZE.—This prize was established by Mr. Fred. A. Schmidt, of Washington, in 1894, and is to hold good for a period of ten years. The prize consists of a set of Alteneder's Drawing Instruments in a leather case, and is awarded to that student entering the second year in either Applied Mathematics or Engineering, who passes highest in a competition examination in Algebra, Geometry, and Mechanical Drawing.

## Prize Winners, 1895.

FAVA PRIZE.

PERLY EGBERT STEVENS.

SCHMIDT PRIZE.

FRED. FERGUSON REISNER.

## Annual Tuition Fees.

| | |
|---|---|
| For single studies not involving any laboratory, designing, or field-work | $30 00 |
| For full Courses (in addition to laboratory fees) | 90 00 |
| Laboratory Courses in Chemical Laboratory (except 10) | 100 00 |
| For chemicals used | 25 00 |
| Deposit (returnable) for apparatus injured | 25 00 |
| Course 10 in Chemical Laboratory, including cost of material and apparatus | 50 00 |
| Laboratory Courses in Assaying of Ores and Bullion | 40 00 |
| For materials used | 20 00 |
| Laboratory Course in Physical Laboratory | 30 00 |
| Laboratory Course in Mineralogy | 60 00 |
| For materials used | 10 00 |
| Laboratory work, field-work, and designing in Civil and Electrical Engineering | 20 00 |
| Final fee for diploma | 10 00 |

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

*All fees are payable in advance,* unless special arrangement be made with the Treasurer to suit the convenience of the student. *Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.*

A student desiring to make any change in his course of study or to drop any study *must* inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. *Students failing to conform to this requirement are responsible for the fees entered on their certificates until such notice is rendered.*

## Text-books.

| | |
|---|---|
| Abbe, Meteorological Apparatus and Methods, 1887 | |
| Abbe, Progress in Dynamic Meteorology, 1888 | |
| Abbe, Short Memoirs on Meteorological Subjects, 1877 | |
| Abbe, The Mechanics of the Earth's Atmosphere, 1893 | |
| Arthur, Barnes and Coulter, Plant Dissection | $1 29 |
| Andersen, Bilderbuch Ohne Bilder | 30 |
| Andromaque | 25 |
| Baker, Masonry Construction | 4 50 |
| Barker, Physics | 3 78 |
| Barker, Elementary Chemistry | 1 40 |
| Beers, Outlines of American Literature | 60 |
| Bloxam, Chemistry | 3 60 |
| Blair, Chemical Analysis of Iron | 3 60 |
| Bright, Anglo-Saxon Reader | 1 86 |
| Brown, Manual of Assaying | 2 50 |
| Burrell, Building Construction | 80 |
| Bowser, College Algebra | 1 65 |
| Bowser, Advanced Trigonometry | 1 60 |
| Bowser, Calculus | 2 25 |
| Breese, Water Wheels | 2 25 |
| Brush, Determinative Mineralogy | 3 15 |
| Bug-Jargal | 40 |
| Clowes, Qualitative Analysis | 2 00 |
| Cohen, Practical Organic Chemistry | 70 |
| Church, Descriptive Geometry | 2 50 |
| Chase and Stuart, Cæsar, new edition | 1 00 |
| Chase and Stuart, Cicero's Letters | 1 00 |
| Chase and Stuart, Cicero's Orations | 1 10 |
| Chase and Stuart, Cicero's De Senectute | 95 |
| Chase and Stuart, Vergil's Æneid, 6 books | 95 |
| Chase and Stuart, Ovid | 1 10 |
| Chase and Stuart, Livy | 1 10 |
| Chase and Stuart, Horace's Odes | 1 10 |
| Chase and Stuart, Horace's Selections | $1 00 |
| Chase and Stuart, Tacitus | 95 |
| Chase and Stuart, Juvenal | 95 |
| Chase and Stuart, Pliny's Letters | 1 00 |
| Cooke, Laboratory Practice | 80 |
| Cuore, Italian Grammar | 1 50 |
| Calderwood, Moral Philosophy | 1 60 |
| Dana, Text-book of Mineralogy | 3 15 |
| Dana, Manual of Geology | 3 84 |
| Emtage, Electricity and Magnetism | 1 90 |
| Erckmann-Chatrian, Histoire d'un Conscrit | 1 00 |
| Fava, Descriptive Geometry Lectures | |
| Fava, Graphical Statics Lectures | |
| Fava, Mechanics Lectures | |
| Fenck, Geo-Morphologie, 1895 | 8 00 |
| Ferrel, Popular Treatise on the Winds, 1887 | 4 50 |
| Ferrel, Recent Advances in Meteorology, 1885 | |
| Fiske, Civil Government | 1 00 |
| Fowler, Inductive and Deductive Logic | 1 75 |
| Fresenius, Qualitative Analysis | 3 60 |
| Fresenius, Quantitative Analysis | 5 40 |
| Frieze, Quintilian | 1 20 |
| Frye, Complete Geography, 1895 | 1 25 |
| Gray, Structural Botany | 2 00 |
| Gray, Manual of Botany | 1 62 |
| Geikie, Text book of Geology | 7 50 |
| Genung, Practical Rhetoric | 1 40 |
| Gerard, Leçons sur l'Electricité, 2 vols | 6 00 |
| Goodale, Physiological Botany | 2 00 |
| Gore, Elements of Geodesy | 2 25 |
| Gore, German Science Reader | 85 |
| Harkness, Latin Grammar | 1 12 |
| Hann, Klimatologie, 1896 | 4 00 |
| Hanus, Determinants | 1 90 |
| Hardy, Quaternions | 2 15 |

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|---|---|
| Hauff, Das Kalte Herz | $ 75 |
| Hempel, Gas Analysis | 1 90 |
| Hinman, Eclectic Physical Geography, 1888 | 1 20 |
| Hurst and Whiting, Seneca | 1 30 |
| Holmes, Steam-engine | 1 60 |
| Johnson, Differential Equations | 3 15 |
| Johnson, Surveying | 3 60 |
| Jevons (Hill), Logic | 1 00 |
| Kemp, Ore Deposits of the United States | 3 60 |
| Ladd, Outlines of Physiological Psychology | 2 00 |
| Lamb, Hydrodynamics, 1895 | 6 00 |
| Le Conte, Elements of Geology | 3 20 |
| Le Cid | 25 |
| Lacombe, Histoire du Peuple Français | 65 |
| L'Avare | 25 |
| Mackenzie, 19th Century | 1 00 |
| Meiklejohn, English Language | 1 30 |
| Merriman, Least Squares | 1 80 |
| Merriman, Mechanics of Materials | 3 15 |
| Munroe, Chemistry of Explosives | 3 00 |
| McCabe, Bingham Latin Grammar | 1 08 |
| McCabe, Bingham Cæsar | 1 08 |
| Merrill, Stones for Building and Decoration | 4 50 |
| Nichols, Analytical Geometry | 1 38 |
| Nunes El Lector Americano, No. 3 | 50 |
| Packard, Zoölogy, Elementary | 90 |
| Packard, Zoölogy, Briefer | 1 23 |
| Packard, Zoölogy, Advanced | 2 66 |
| Phillips, Engineering Chemistry | 3 20 |
| Porter, Intellectual Science | 2 40 |
| Ramsey, Text-book of Modern Spanish | 1 98 |
| Remsen, Organic Chemistry | 1 30 |
| Rankine, Applied Mechanics | 4 50 |
| Rankine, Machinery and Mill-work | *4 50 |
| Rickett, Notes on Assaying | 2 70 |
| Richter, Organic Chemistry | 3 60 |
| Rivington's Building Construction, vol. 1 | $3 15 |
| Rivington's Building Construction, vol. 2 | 3 15 |
| Rivington's Building Construction, vol. 3 | 5 40 |
| Rivington's Building Construction, vol. 4 | 4 00 |
| Rice and Johnson, Differential Calculus | 3 15 |
| Schoenfeld, German Historical Prose | |
| Slingo and Brooker, Electrical Engineering | 2 80 |
| Shaw, New History of English Literature | 1 00 |
| Sprung, Lehrbuch der Meteorologie, 1885 | 3 00 |
| Storm, Immensee | 25 |
| Tarr, Elementary Physical Geography, 1895 | 1 40 |
| Thompson, Dynamo-electric Machinery | 4 80 |
| Trautwine, Engineer's Pocketbook | 4 50 |
| Tuthill, Architectural Drawing | 2 00 |
| Thorpe, Quantitative Analysis | 1 35 |
| Unwin, Machine Design, vol. 1 | 1 60 |
| Unwin, Machine Design, vol. 2 | 1 20 |
| Van Daell, Introduction to French Language | 1 10 |
| Ward, Flora of Washington, unbound | 50 |
| Warren, Descriptive Geometry | 2 25 |
| Wagner, Chemical Technology | 6 00 |
| Wright, Adjustment of Observations | 4 00 |
| Weisbach, Theoretical Mechanics | 9 00 |
| Wells, Plane and Solid Geometry | 1 50 |
| Wells, Plane and Spherical Trigonometry | 1 50 |
| Williams, Crystallography | 1 36 |
| Young, General Astronomy | 2 50 |
| Zettel, Handbuch der Paleontologie. Issued in parts; prices vary. | |

## Rooms and Board.

During the year 1895–1896 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month. Lists of persons offering rooms and board can be obtained from the Secretary and Treasurer of the University.

For further information regarding the Corcoran Scientific School, application may be made to

CHARLES E. MUNROE, *Dean*,
*The Columbian University.*

## STUDENTS IN THE CORCORAN SCIENTIFIC SCHOOL.

### Candidates for Degrees.

| Name. | State. | Address. |
|---|---|---|
| John Phipps Alexander | Tenn. | 815 14th St., N. W. |
| Fanny May Allen | Md. | Anacostia, D. C. |
| John Elmer Armstrong | N. Y. | Pension Bureau. |
| Robert Stribling Barrett, Jr | Va. | 2213 Washington Circle, N. W. |
| George Lowman Beeler | Ill. | 700 12th St., N. E. |
| Frederick Brooke Berry | D. C. | 1318 11th St., N. W. |
| William Froederick Biehl | Ohio | 1824 9th St., N. W. |
| Daniel Thomas Birtwell | Penn. | 238 Maryland Ave., N. E. |
| E. Roger Boyle | Md. | Hyattsville, Md. |
| Eugene Bradbury | Va. | Arlington, Va. |
| Archibald Webster Brown | Md. | 1739 14th St., N. W. |
| Harry Ashby Burgess | D. C. | Cor. 8th and O Sts., N.W. |
| Charles Fremont Burnside | Wash. | Department of Justice. |
| Clarence Metz Butler | Minn. | 919 New York Ave., N.W. |
| Joseph W. Butts | N. Y. | 1467 Kenesaw Ave., N.W. |
| John Murphy Caffery | La. | 220 North Capitol St. |
| Daniel D. Caldwell | Ill. | 2020 F St., N. W. |
| George Homer Campbell | Maine | 301 8th St., N. E. |
| M. Agnes Clancy | D. C. | 2709 P St., N. W. |
| S. Clark Cross | D. C. | 138 11th St., N. W. |
| George A. Didden | D. C. | 709 13th St., N. W. |
| Richard George Doerfling | D. C. | 509 4th St., N. W. |
| Aida M. Doyle | D. C. | 1902 3d St., N. W. |
| Maurice Owen Eldridge | Tenn. | Agricultural Department. |
| Edmund Percy Ellis | D. C. | 121 11th St., N. E. |
| Leon Moyer Estabrook | Texas | 1801 E St., N. W. |
| Harry Farmer | Iowa | 1437 R St., N. W. |
| William Thomas Faulkner | Miss. | Treasury Department. |
| Alfredo Victor Gana<br>Ph. B., 1893, University of Chile. | Chile | Chilean Legation. |
| William F. Hackett | Md. | Brookland, D. C. |
| Lewis Tussler Haney | Va. | Box 348, Alexandria, Va. |
| Henry H. Hawling | D. C. | 2135 L St., N. W. |
| Roy Bagley Hayes | Wis. | 626 O St., N. W. |

| Name. | State. | Address. |
|---|---|---|
| Emma Pauline Heald | Mass. | 1009 12th St., N. W. |
| James Edgar Hiatt | Ind. | 817 3d St., N. W. |
| Lillie B. Holbrook | Mass. | 943 Westminster St., N.W. |
| Charles Emerson Hood | D. C. | 1017 O St., N. W. |
| John Bartlett Hull | Ga. | Patent Office. |
| George Johannes | Penn. | 228 Morgan St., N. W. |
| James P. Keleher | D. C. | 409 A St., S. E. |
| Corrado H. Lanza | D. C. | 1601 20th St., N. W. |
| Noble Lewis | D. C. | 1339 Corcoran St., N. W. |
| Fred. Nelson Libby | Wis. | 712 N St., N. W. |
| John Benjamin Lichty | Ill. | 458 C St., N. W. |
| Carl A. Loeffler | Penn. | 1632 P St., N. W. |
| Guy Bennett Marean | D. C. | 1900 Lincoln Ave., N. W. |
| Ralph Brewster Marean | Penn. | Brookland, D. C. |
| Victor Louis Mason | D. C. | 1528 Corcoran St., N. W. |
| Adelia Estelle Matthewson | N. Y. | 1910 8th St., N. W. |
| Orton Love Meigs | D. C. | 325 2d St., S. E. |
| Ferdinand Emil Molkow | N. Y. | 46 K St., N. E. |
| Frederick W. Moore | Penn. | 1401 H St., N. W. |
| Martin Joseph Nolan | Penn. | 69 K St., N. E. |
| Charles C. Owens | Md. | Hyattsville, Md. |
| Charles Lieberman Parker | D. C. | 1425 Corcoran St., N. W. |
| Edwin Geary Paul | Penn. | 1454 Staughton St., N.W. |
| Joseph Saxton Pendleton | D. C. | 1752 M St., N. W. |
| Gaston Pierson Philip | D. C. | 1230 Connecticut Ave., N. W. |
| Edward G. Portner | D. C. | 1104 Vermont Ave., N.W. |
| James Witherow Purman | Penn. | 1435 Chapin St., N. W. |
| Fred. Ferguson Reisner | Mo. | 323 Maple Ave., N. W. |
| Audubon Wheelock Ridgway | D. C. | Brookland, D. C. |
| Thomas Caldwell Ridgway | Ill. | 1632 17th St., N. W. |
| Guy Longfellow Seaman | Iowa. | Takoma Park, D. C |
| Edward R. Shane | D. C. | 818 9th St., N. W. |
| Frank Eugene Skinner | Wis. | Takoma Park, D. C. |
| Ida I. Summerscales | D. C. | 1714 5th St., N. W. |
| Thomas Charles Taylor | Ohio. | 117 7th St., N. E. |
| John A. Thompson | D. C. | 1720 H St., N. W. |
| George Carroll Todd | Va. | 3169 P St., N. W. |
| Edwin Briggs H. Tower, Jr | D. C. | 1515 17th St., N. W. |
| Mayville William Twitchell | N. Y. | 709 8th St., N. E. |

| Name. | State. | Address. |
|---|---|---|
| Lineas D. Underwood | Ohio | 707 12th St., N. W. |
| Ferdinand Claiborne Walsh | Md. | 1504 H St., N. W. |
| Francis R. Weller | D. C. | 408 C St., S. E. |
| Horace G. Welty | Md. | College Park, Md. |
| Henry Clinton Wilson | Md. | 1318 G St., N. W. |
| Richard Winckelmann | D. C. | 1122 7th St., N. E. |

Candidates for degrees..... 78

## Special Students.

| Name. | State. | Address. |
|---|---|---|
| Hortense Alexander | Texas | 1217 M St., N. W. |
| Alexander Marshall Allison | N. Y. | 726 N. J. Ave., N. W. |
| Ethel Marie Arms | D. C. | Chevy Chase, Md. |
| Caroline H. Arms | D. C. | 1525 L St., N. W. |
| Julius Leopold Arntzen | Mo. | 1706 F St., N. W. |
| Lucy Y. Arrick | D. C. | 1131 14th St., N. W. |
| Frank Lloyd Averill | N. Y. | 1479 Columbia Road, D.C. |
| C. E., 1891, Columbian University. | | |
| Vernon Bailey | Minn. | 1707 P St., N. W. |
| Brook M. Baker | D. C. | 1819 H St., N. W. |
| Charles Mason Baker | D. C. | 1739 19th St., N. W. |
| Thomas Morrow Barbee | Mo. | Kendall Green, D. C. |
| Virgie S. Bates | D. C. | 1308 16th St., N. W. |
| Frances M. Bickford | D. C. | 1912 15th St., N. W. |
| David Holmes Blakelock | D. C. | 619 6th St., S. W. |
| Louis T. Boisseau | D. C. | 619 6th St., S. W. |
| Fannie C. Brewer | Md. | 1213 M St., N. W. |
| M. D., 1895, Columbian University. | | |
| Martha M. Brewer | Mass | Lanham, Md. |
| Alfred Hulse Brooks | N. Y. | Geological Survey. |
| A. B., 1894, Harvard University. | | |
| Cobrun Lee Broun | Va. | 1805 13th St., N. W. |
| Harriet Louise Cameron | Minn. | 250 9th St., N. E. |
| Blanche Campbell | D. C. | 430 N. J. Ave., N. W. |
| Ada Carman | D. C. | 1351 Q St., N. W. |
| Fountaine L. Carswell | Ga. | 915 I St., N. W. |
| Edward MacKay Chace | D. C. | 1206 6th St., S. W. |

| Name. | State. | Address. |
|---|---|---|
| Edwin R. Conner | D. C. | 1721 Corcoran St. |
| Lewis C. Coonwell | Iowa. | 120 E St., N. E. |
| Thomas L. Costigan | Del. | 202 Arthur Place, N. W. |
| Carl Frederick Theodore Cott. | D. C. | Bladensburg Road, D. C. |
| Theodosia O. Culver | S. C. | 1606 K St., N. W. |
| Zachary Lewis Dalby | Va.. | 627 Maryland Ave., N. E. |
| Mary Owen Dean | D. C. | 618 Massachusetts Ave., N. W. |
| Luman Millott Ellis | Ohio. | 1707 19th St., N. W. |
| Charles Russell Ely | Md. | Kendall Green, D. C. |
| A. B., ——, Yale University. | | |
| William Henry Ernul | N. C. | 1450 Corcoran St., N. W. |
| William W. Everett | D. C. | 903 S St., N. W. |
| Charles Fair | D. C. | 134 6th St., N. E. |
| Bolivar Lang Falconer | Texas | Civil Service Commission. |
| Arthur Le Roy Fill | D. C. | 1846 Wyoming Ave., N. W. |
| Louis A. Fischer | D. C. | 510 I St., N. W. |
| Frank D. Fletcher | N. Y. | 1700 14th St., N. W. |
| Isaac N. Fluckey | Ill. | 1304 W St., N. W. |
| Ella May Ford | Va. | 55 Q St., N. E. |
| Charles N. Forrest | Md. | 809 N. Gilmer St., Baltimore, Md. |
| William Joseph French | D. C. | 1917 S St., N. W. |
| Frank Duane Gardner | Ill. | 212 12th St., S. W. |
| Harry S. Garner | Penn. | Department of State. |
| Henry Wise Garnett | D. C. | 416 5th St., N. W. |
| Amanda E. Garrett | Ind | 1012 15th St., N. W. |
| Ellen Golden | N. Y. | 1714 Q St., N. W. |
| Lee Roberts Grabill | D. C. | 1413 V St., N. W. |
| James Richard Hamilton | Texas. | 522 3rd St., N. E. |
| Julian O. Hargroove | D. C. | 3310 N St., N. W. |
| Franklin W. Hart | D. C. | 1321 11th St., N. W. |
| William Harvey Hatch, Jr. | Va. | Arlington, Va. |
| Charles W. Heider | D. C. | Brentwood Road, D. C. |
| William Eldridge Hillyer | Fla. | 412 A St., S. E. |
| Katherine W. Hobgood | La. | 1231 I St., N. E. |
| Walter A. Holden | Conn. | Hotel Lincoln. |
| N. Monroe Hopkins | D. C. | 1730 I St., N. W. |
| William Hopkins | D. C. | 1324 18th St., N. W. |
| Charles E. Howe | Penn. | 1405 G St., N. W. |

| Name. | State. | Address. |
|---|---|---|
| John Rees Hudson, Jr. | Ga. | Geological Survey. |
| Albert Howard Johnson | D. C. | 1706 9th St., N. W. |
| William A. Johnson | N. C. | 1300 Pennsylvania Ave., N. W. |
| Philip M. Julien | D. C. | Brookland, D. C. |
| William Houston Kerr | Mo. | 1330 T St., N. W. |
| Louis Peter Keyser | D. C. | 2019 Massachusetts Ave., N. W. |
| Mineola Kirkland | D. C. | 1106 B St., N. W. |
| Nannie E. Kuhlmann | Mo. | 1218 6th St., N. W. |
| Fred. W. Lepper | D. C. | 825 D St., N. E. |
| Annie Johnstone Lewis | N. C. | 1507 Vermont Ave. |
| Reeve Lewis | D. C. | 620 F St., N. W. |
| George M. Lukesh | Ohio. | 1732 P St., N. W. |
| William M. Lytle | Ohio. | 812 Connecticut Ave., N. W. |
| Paul Bishop McConville | Ohio. | 1921 K St., N. W. |
| Martin J. McPike | D. C. | 812 1st St., N. W. |
| Janet McWilliam | D. C. | 2142 K St., N. W. |
| Horace Mann<br>B. S., 1893; M. S., 1895, Columbian University. | Iowa | 1613 Florida Ave. |
| Lizzie Edna Marshall | D. C. | 1908 H St., N. W. |
| Thomas Herbert Means | D. C. | Brookland, D. C. |
| Edith W. Meloy | D. C. | 118 C St., N. W. |
| William Curran Mendenhall | Ohio. | Geological Survey. |
| Margaret J. Merrilat | D. C. | 1430 8th St., N. W. |
| Frederick P. Metzger | D. C. | 320 2nd St., S. E. |
| Robert Miller | D. C. | 636 15th St., N. E. |
| Joseph S. Mills<br>A. B., 1890; A. M., 1893, Western Maryland College. | Md. | 1132 10th St., N. W. |
| Thomas J. Murray | D. C. | 423 New York Ave., N.W. |
| Louis Peter Naylor | N. J. | 802 North Capitol St. |
| C. Ashford Neale | Va. | 119 Payne St., Alexandria, Va. |
| Frederick H. Newell | Penn. | 1330 F St., N. W. |
| Nathaniel Paige, Jr. | D. C. | 1334 Massachusetts Ave., N. W. |

| Name. | State. | Address. |
|---|---|---|
| Richard Gantt Paine | S. C. | 1416 Rhode Island Ave., N. W. |
| Charles Preston Phelps | D. C. | 113 3d St., N. E. |
| Francis Elmer Phelps | Md. | 532 6th St., S. E. |
| Julian Irving Pierce | Mich. | 514 2d St., N. W. |
| George F. Plugge | D. C. | 474 Pennsylvania Ave., N. W. |
| William Schuyler Post | Ill. | 1738 Q St., N. W. |
| Morris Price | D. C. | 412 B St., N. E. |
| Chester W. Purington<br>A. B., 1893, Harvard University. | Mass. | Geological Survey. |
| Mary Meade Raborg | D. C. | 1643 19th St., N. W. |
| Doctrine Hugh Reed | N. C. | 915 I St., N. W. |
| Luther H. Reichelderfer | Ohio | 1205 Q St., N. W. |
| Mark Riley | Texas | 523 New Jersey Ave., N. W. |
| Louis Carberry Ritchie | D. C. | 3259 N St., N. W. |
| Asa Daniel Roberds | Fla. | 222 3d St., N. W. |
| Carolie C. Robinette | Penn. | 301 Maryland Ave., N. E. |
| J. Arthur Rose | D. C. | 941 T St., N. W. |
| William Percy Rose | D. C. | 1300 Pennsylvania Ave., N. W. |
| Arthur B. Russ | Maine | 9 9th St., S. E. |
| Salvador Sanders | D. C. | 538 11th St., S. E. |
| Harold N. Saxton | N. Y. | Civil Service Commission. |
| William D. Searle | N. Y. | 1131 12th St., N. W. |
| Lottie M. Shade | D. C. | 1232 14th St., N. W. |
| Abbie M. Sisson | Ohio | 440 K St., N. W. |
| Jessie Marion Smith | Cal. | 917 G St., N. W. |
| Gertrude Spear | Mo. | 801 C St., S. W. |
| Joseph C. Stack | D. C. | 743 2d St., N. W. |
| G. Faber Stevenson | Ohio | 911 W St., N. W. |
| William Francis Sullivan | D. C. | 930 Delaware Ave., N. E. |
| Alexander Summers<br>A. M., University of Tennessee. | Tenn. | Bureau of Education. |
| William H. Syme | W. Va. | 643 East Capitol St. |
| Francis E. Taylor | Md. | 134 F St., N. E. |
| J. Ford Thompson, Jr | D. C. | 804 17th St., N. W. |
| Agustus B. Tolman | Mass. | 905 Westminster St., N. W. |
| Emma Harper Turner | Ind. | 1320 Corcoran St., N. W. |

| Name. | State. | Address. |
|---|---|---|
| Frederick Tyers | Kans. | 825 13th St., N. E. |
| Albert Mynard Walker | Iowa | 1000 New Hampshire Ave., N. W. |
| James W. G. Walker | Mass. | 1202 18th St., N. W. |
| George H. Wells | Ill. | Takoma Park, D. C. |
| Sara West | Germany | 203 G St., N. W. |
| Nellie Wheeler | Mo. | 626 B St., S. W. |
| Harry B. White | D. C. | 802 D St., S. W. |
| Mabel Whitcomb | Kans. | 1906 3d St., N. W. |
| Thomas A. Witherspoon, Graduate U. S. N. A. | Tenn. | 1217 K St., N. W. |
| Albert S. Woollen | Ind. | 722 3d St., N. E. |
| Henry C. Workman | Mich. | 415 3d St., N. W. |
| Winfield F. Works | D. C. | 1541 9th St., N. W. |
| Albert F. Zust | Iowa | 222 3d St., N. W. |

Special students..... 139

Total..... 217

# THE SUMMER SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

HOWARD L. HODGKINS, PH., D.,
Director.

LEE DAVIS LODGE, PH. D.,
Professor of French.

FRANCIS R. FAVA, JR., C. E.,
Professor of Applied Mathematics and Civil Engineering.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

ANDREW F. CRAVEN, PH. D.,
Professor of Economics.

EDWARD FARQUHAR, PH. D.,
Professor of English History and Literature.

H. GRANT HODGKINS, A. B.,
Instructor in Mathematics.

MARATHON MONTROSE RAMSEY, A. M.,
Instructor in Spanish, Italian, and Portuguese and Secretary of the Faculty.

FRANK L. AVERILL, C. E.,
Instructor in Civil Engineering.

ERNEST L. THURSTON, C. E.,
Instructor in Latin and Mechanical Drawing.

PETER FIREMAN, PH. D.,
Instructor in the Physical Sciences and Russian.

JOHN SCOTT JOHNSON, A. M.,
Assistant in Applied Mathematics and Civil Engineering.

EDWARD A. MUIR,
Assistant in Mechanical Drawing.

EMIL H. MEYER,
Instructor in Fine Arts.

P. E. STEVENS, C. E.,
Assistant in Applied Mathematics and Civil Engineering.

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The Summer School of The Columbian University, which was established as a branch of the Corcoran Scientific School, held its first session from July 1 to August 12, 1894.

The class-work of the Summer School for 1895 commenced on Monday, June 17, and continued for six weeks. The hours of instruction were from 4 to 8 p. m.

The class-work for 1896 will begin June 15, and will continue until July 28.

## COURSES OF INSTRUCTION.

### Applied Mathematics.

PROFESSOR FAVA.
MR. JOHNSON.
MR. STEVENS.

1. Elements of Applied Geometry. Four hours.

This course (see "Applied Mathematics, 1") is compulsory in the first year of the regular course. It is offered in the Summer School, in advance of the regular work, to enable students better to follow the courses of the regular session.

2. Elements of Descriptive Geometry and Projection. Two hours.

An informal course, conducted on the Seminary plan, especially intended for teachers in public schools.

3. Some difficult problems in stone-cutting.

REVIEW COURSES.

4. Descriptive Geometry. Two hours.
5. Perspective. Two hours.
6. Elementary Mechanics. Two hours.
7. Graphic Statics. Two hours.

Courses 4 to 7 are practical reviews of the regular courses, and have been arranged for the benefit of full-course students, as well as for others desiring to acquire more familiarity with these subjects.

## Philosophy.

DR. STERRETT.

1. A course in Pedagogics.
Text-book: Rosenkranz.
2. Courses in Philosophy, subject to arrangement.

## Civil Engineering and Building Construction.

PROFESSOR FAVA.
MR. AVERILL.
MR. JOHNSON.
MR. STEVENS.

1. Elements of surveying. For beginners. Six hours.
2. Railroad curves and advanced surveying. Six hours.
3. In August: A course in elementary surveying, of ten working days *in the field.* For not less than ten nor more than twenty students.
4. In August: A course of *field practice* in railroad and engineering field-work, for ten working days. For not less than ten students.
5. In September: A week's tour, to visit the engineering works of the principal neighboring cities. For not less than ten nor more than thirty students.

Students participating in courses 3, 4, and 5 will be required to pay their own board and traveling expenses.

6. Elements of building construction, with practical demonstrations on buildings in course of erection. Four hours.
7. A special course in street railroads, with practical inspection of the railroads of this city and Baltimore. For not less than ten students. Four hours.

8. A special course in cement testing. Two hours.
9. Bridge-building considered historically. Two hours.
10. Photography applied to engineering, with practice. Four hours.

## Economics.

DR. CRAVEN.

1. Finance. Three hours.

The Science of Money and Credit, with especial reference to present conditions in the financial world.—Lectures, notes, collateral reading from Walker, Macleod, Cohn, and others.

2. Politics. Three hours.

Fundamental principles of government by the people; organization and functions of the Township, County, City, and State.—Diagrams, lectures, notes, readings, and reviews.

3. Political Economy. Three hours.

Short text-book studies from Adam Smith, Ricardo, Mill, and Marshall. A complete outline of Political Economy will be given.

4. International Law. Three hours.

Sources, purposes, and *economic* effects and benefits of International Law.—Texts: Woolsey and Gallaudet.

## Fine Arts.

MR. MEYER.

1. Lessons from Nature. Landscapes in pencil, wash, and color. Two hours.
2. Free-hand drawing applied to architecture and civil engineering. Two hours.

## French.

DR. LODGE.

1. The rudiments of French. Two hours.
2. French literature of the XVIIth century. Two hours.
3. Special courses, subject to arrangement. Two hours.

### German.

DR. SCHOENFELD.

1. Training in elementary grammar; systematic exercises in conversation, with readings from *Bilderbuch ohne Bilder* and *Immensee*. Two hours.

2. German syntax; conversation; readings from the novelists, and a study of Lessing. Two hours.

3. An advanced course in German literature and history. Two hours.

### History and Literature.

DR. FARQUHAR.

The scope of the courses in History and Literature will be determined upon consultation with the students.

### Italian.

MR. RAMSEY.

1. Elementary course, for beginners. Two hours.

This course is intended to take the student through the rudiments of the grammar and enable him to read easy prose.

2. Italian phonetics. Two hours.

A course offering thorough drill in the quality and quantity of Italian voice-sounds, pronunciation, and expression. Designed especially for students of vocal music.

3. Advanced course. Two hours.

Some one masterpiece of Italian literature will be read and discussed, accompanied with exercises in composition.

Text-books: Grandgent's Italian Grammar and Composition.

### Latin.

MR. THURSTON.

1. A course in the rudiments of Latin, including a study of the essentials of Latin Grammar and practice in simple exercises. Three hours.

2. A course in reading Latin; Latin Grammar Exercises. Three hours.

## Mathematics.

MR. HODGKINS.

1. Algebra. Four hours.
2. Plane Geometry. Four hours.
3. Plane Trigonometry. Four hours.

These courses are designed primarily for beginners, and are intended to carry the student through simple equations in Algebra; through two books of Plane Geometry, and through Plane Trigonometry. The Instructor will strive to give the student a solid foundation in these branches.

Should a sufficient number apply, classes will be formed for a rapid review of Algebra, Plane and Solid Geometry, and Plane and Spherical Trigonometry.

## Mechanical Drawing.

MR. THURSTON.

1. Mechanical Drawing as applied to Patent Office work.

Practice in mechanical shading and expression. Practice in model drawing from Patent Office models. Three hours (with several hours extra practice).

MR. MUIR.

Two short courses, of four hours each, in Mechanical Drawing, as applied to machine-shop practice.

1. A course in the elements of projection, for beginners.
2. A course in working drawings, details, and general practice.

The drawing-room will be open each evening from 6 to 8 to accommodate students who desire extra practice.

## Physical Science.

DR. FIREMAN.

A. *Physics:*

Introduction to the study of physics, embracing the general properties of matter and the different forms of energy. Three hours.

B. *Chemistry:*

1. Introduction to the study of chemistry.
2. Drill in chemical calculations and the writing and reading of formulas.

### Portuguese.

MR. RAMSEY.

1. An elementary course, covering the rudiments of the grammar, with reading exercises. Two hours.

2. The phonology, syntax, and word-formation of the Portuguese language in their relation to Spanish and Latin. One hour.

### Russian.

DR. FIREMAN.

1. A course in elementary grammar, with reading of Russian tales. Three hours.

2. A more advanced course will be arranged to meet the desires of applicants.

### Spanish.

MR. RAMSEY.

1. Elementary course (similar to course 1 in Italian). Two hours.

2. Practice in conversation and newspaper reading. (No English spoken.) Two hours.

3. Spanish literary style, the principles of criticism, syntax, and rhetoric. Two hours.

Text-book: Ramsey's Text-book of Modern Spanish.

### Tuition.

The fee for a single course is ten dollars. The payment of twenty dollars admits the student to all the courses. Only those courses are given for which a sufficient number of applicants present themselves. The number of hours mentioned under each course means hours a week. Classes are open to students of either sex.

Particular attention is called to the fact that each course when completed will constitute a definite unit of work, which will be accepted by the University in lieu of the same work in the Columbian College or in the Corcoran Scientific School. Attention is also invited to the unusual facilities for language-study here provided, instruction being offered in nine different languages.

For further information address Howard L. Hodgkins, Ph. D., Director of the Summer School.

## Students in the Summer School, 1895.

| Name. | Address. |
|---|---|
| John Elmer Armstrong, New York, | Pension Bureau. |
| William Frederick Biehl, Ohio, | 1820 9th St., N. W. |
| Frank Lee Biscoe, District of Columbia, | 813 21st St., N. W. |
| Bernard James Collins, District of Columbia, | 1503 Caroline St., N. W. |
| Lewis C. Conwell, Iowa, | 202 E St., N. W. |
| Zelma Rigby Davis, California, | 1432 R St., N. W. |
| Frank Dexter Fletcher, New York, | 1332 R St., N. W. |
| Weston Brown Flint, District of Columbia, | 1323 S St., N. W. |
| I. N. Fluckey, Illinois, | War Department. |
| George Emery Green, Massachusetts, | 1123 3d St., N. W. |
| N. S. D. Harrison, | 1617 17th St., N. W. |
| Charles George Hodge, District of Columbia, | 2139 K St., N. W. |
| Albert Howard Johnson, District of Columbia, | 1706 9th St., N. W. |
| Thad. H. Libby, District of Columbia, | McGill Building. |
| Frederick Carl Lutz, District of Columbia, | 1904 9th St., N. W. |
| N. M. Miller, Illinois, | 6 Iowa Circle |
| E. Elmer Mitchell, Iowa, | 318 3d St., N. W. |
| Carrie B. Norman, Mississippi, | 1017 12th St., N. W. |
| Roger Temple Orrison, Virginia, | 10 5th St., N. E. |
| T. S. Palmer, District of Columbia, | 1104 P St., N. W. |
| C. Preston Phelps, District of Columbia, | 113 3rd St., N. E. |
| J. Stewart Rice, District of Columbia, | 1323 S St., N. W. |
| Frederick Ferguson Reisner, Missouri, | 3330 Maple Ave., N. W. |
| A. J. Scott, | 923 Maryland Ave., S. W. |
| August B. Tolman, Massachusetts, | 905 Westminster St., N. W. |
| William Krafft Ward, District of Columbia, | 1756 Pennsylvania Ave., N. W. |
| Frank B. Whitaker, District of Columbia, | 1928 15th St., N. W. |

Total..... 27

# DEPARTMENT OF UNIVERSITY EXTENSION.

CHARLES T. SEMPERS, A. M., DIRECTOR.

The object of University Extension is to provide the means of higher education for persons without interfering with the regular occupations of life.

This is accomplished by means of—

The Lecture Course.

The Class Course.

The Correspondence-study Course.

THE LECTURE COURSE.—In order to make the Lecture Course attractive to persons desiring merely a general acquaintance with the subjects taught, as well as to students who are anxious to make a more thorough study, a special method is followed.

LECTURERS.—The lecturers are either professors in The Columbian University or persons specially approved by the University.

THE CLASS COURSE usually consists of a series of ten weekly meetings with the lecturer, each meeting occupying about one hour. Personal teaching, study, and discussion, following a required text-book, take up the entire time.

THE CORRESPONDENCE-STUDY COURSE is conducted by mail. It consists of forty weekly exercises written by the student under the direction of an instructor. A student may begin a course at any time of the year.

EXPENSE.—The fee for the Lecture Course is $130. The fee for the Class Course is $75. These fees are due at the time of the second meeting from the center or class as a whole to the office. The cost to the individual varies according to the number of members in the center or class. The price of course tickets has usually been between $1 and $2.50. The fee for the Correspondence Course is $20.

For circulars giving detailed information, address—

DIRECTOR UNIVERSITY EXTENSION,
THE COLUMBIAN UNIVERSITY,
WASHINGTON, D. C.

# THE GRADUATE SCHOOL.

## Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

JAMES HOWARD GORE, PH. D.,
Professor of Mathematics.

LEE DAVIS LODGE, PH. D.,
Professor of French and Political Philosophy and Secretary of the Faculty.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

FRANCIS R. FAVA, JR., C. E.,
Professor of Civil Engineering.

THEODORE N. GILL, PH. D.,
Professor of Zoölogy.

CLEVELAND ABBE, A. M.,
Professor of Meteorology.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

THE REV. J. MACBRIDE STERRETT, D. D.,
Professor of Philosophy.

EDGAR FRISBY, A. M.,
Professor of Astronomy.

WILLIAM C. WINLOCK, A. B.,
Professor of Astronomy.

WILLIAM T. HARRIS, LL. D.,
Professor of Philosophy.

EMIL A. DE SCHWEINITZ, PH. D.,
Professor of Bio-Chemistry.

FRANK W. CLARKE, S. B.,
Professor of Mineral Chemistry.

HARVEY W. WILEY, PH. D.,
Professor of Agricultural Chemistry.

THE REV. FRANK H. BIGELOW, A. M.,
Professor of Solar Physics.

GEORGE P. MERRILL, PH. D.,
Professor of Geology.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics.

EDWARD FARQUHAR, PH. D.,
Professor of History.

H. CARRINGTON BOLTON, PH. D.,
Professor of Bibliography and Bibliology.

LOUIS AMATEIS,
Professor of Fine Arts as Applied to Architecture.

FRANK A. WOLFF, PH. D.,
Professor of Electrical Engineering.

F. LAMSON-SCRIBNER, B. Sc.,
Professor of Botany.

GEORGE J. SMITH, PH. D.,
Professor of English.

JOSEPH C. HORNBLOWER,
Professor of Architecture.

HANS ZOPKE,
Professor of Mechanical Engineering.

C. F. MARVIN, M. E.,
Associate Professor of Meteorology.

ELMER S. FARWELL, C. E.,
Associate Professor of Mechanical Engineering.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

---

**Board of Directors of University Studies.**

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THE REV. ADONIRAM J. HUNTINGTON, D. D., Professor of Greek.
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THEODORE N. GILL, Ph. D., Professor of Zoölogy.
OTIS T. MASON, Ph. D., Lecturer on Anthropology.
CLEVELAND ABBE, A. M., Professor of Meteorology.
D. KERFOOT SHUTE, A. B., M. D., Professor of Anatomy.
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LEE DAVIS LODGE, Ph. D., Secretary, and Professor of French and Political Philosophy.
HERMANN SCHOENFELD, Ph. D., Professor of German.
THE REV. J. MACBRIDE STERRETT, D. D., Professor of Philosophy.
THE REV. FRANK H. BIGELOW, A. M., Professor of Solar Physics.

The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and was opened for the reception of students on Thursday, the 5th of October, 1893. The Fourth Session will begin September the 30th, 1896.

The School will be opened each year with a public address by a member of the Faculty.

## Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors.

## The Masters' Degrees.

Persons holding the degree of Bachelor of Arts from institutions of repute are qualified to enter as candidates for the degree of Master of Arts, and those holding the degree of Bachelor of Science for the degree of Master of Science.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present an acceptable thesis.

## Engineering Degrees.

Persons holding the degree of Bachelor of Science in Engineering courses, or its equivalent, from institutions of repute are qualified to enter as candidates for the degrees of Civil Engineer, Mechanical Engineer, and Electrical Engineer.

Candidates to be eligible shall pass one year at this University in the advanced study of engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

## Doctors' Degrees.

Persons holding the degree of Master of Science, Master of Arts, or their equivalent, from institutions of repute are qualified to offer themselves as candidates for the degree of Doctor of Philosophy.

Candidates for the degree of Doctor of Philosophy shall offer themselves

in three topics for advanced study—one major and two collateral minor subjects. Before being admitted as candidates they shall pass satisfactory examinations in French and German, and shall pay an examination fee of five dollars for the examination in each of those languages.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in the study at this University of their major topic and one year in the study of each minor topic; they shall sustain satisfactory examinations upon the three subjects which they may have elected, and they shall present theses, accompanied with an exhaustive bibliography, embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts.

## Fees.

The matriculation fee of candidates for any degree conferred in this School is ten dollars.

The annual fee for instruction and direction of candidates for Masters' degrees is thirty dollars.

The annual fee for instruction and direction of candidates for an Engineering or a Doctor's degree is ninety dollars.

Where laboratory courses are taken, whether for a Master's, an Engineering, or a Doctor's degree, the fee in excess of the above-mentioned fees will be fixed by the Corporation.

The fee for a diploma is ten dollars.

## Commencement.

Candidates for degrees are expected to appear at the Commencement Exercises in academic caps and gowns.

## Theses.

All theses must be presented on the official thesis paper of the University, and they must be typewritten when possible. Official Thesis Paper can be purchased from the Treasurer of the University.

All theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives; but authors are permitted to make copies by applying to the Dean.

Candidates who receive the degree of Doctor of Philosophy are expected to have their theses printed as early as practicable after graduation and present fifty copies of the printed thesis to the University through the Dean, to be distributed among learned institutions.

## Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* shall close at least five weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least three weeks before the date of the commencement."

## Courses of Study in the Graduate School.

The following courses are offered to students in the Graduate School. Candidates for the degree of Doctor of Philosophy will be required to select their major subject from among those enumerated below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors.

### English.

PROFESSOR SMITH.

Graduate studies in this school are offered in the following courses *in addition to the elective courses already named.** For the degree of Master of Arts four approved courses must be elected and completed. Two years' subsequent study is requisite for the degree of Doctor of Philosophy.

1. The Béowulf. (Course 5* or its equivalent is a prerequisite.)
2. Gothic, and introduction to Germanic Philology.
3. Old French, in relation to English; phonology, inflections, reading. (Ability to use French and German text-books is presupposed.)
4. Old English, readings from Morris or from Mätzner's Altenglische Sprachproben. Knowledge of Anglo-Saxon and Old French is prerequisite.
5. The Early English Metrical Romances.
6. Research courses in special authors or periods or in the philosophical history of English or American literature.

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*See English Courses, Corcoran Scientific School.

## Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

I. Herodotus and Thucydides.

II. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.

III. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.

II. The Tragic Poets.

III. Plato or Aristotle.

## Latin.

PROFESSOR MONTAGUE.

Three courses are offered, and selections are made from those works of the authors named below which are not usually read by undergraduates:

I. Plautus, Cicero, Tacitus.

II. Terence, Livy, Pliny the Younger.

III. Lucretius, Catullus, Seneca, Justinian (Institutes).

In connection with each course the following subjects will be studied:

1. Fragments of Early Latin; Latin Inscriptions (Allen).
2. Roman Versification (Platner).
3. The History of Roman Literature (Cruttwell).
4. Critical Study of Syntax (Peters; Roby).
5. Latin Composition (Translations from prose authors to be rendered without preparation into Latin).
6. Monthly Essays in Latin upon the authors and their times.
7. Papers upon the peculiarities of authors and upon the obligations of modern to ancient writers, and abstracts of works assigned.
8. Review of Roman History; Study of Epochs.
9. Roman Antiquities (Dr. Smith; Rich).
10. Comparative Philology.
11. An exhaustive bibliography of each of the authors read.

For Master of Arts, any one course; for Doctor of Philosophy, any two courses.

## French Philosophy.

PROFESSOR LODGE.

I. (*a.*) A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.

Weber's Histoire de la Philosophie Européenne.

(*b.*) Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth Century.

(*c.*) Mediæval French Philosophy.

II. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.

III. The Eighteenth Century; Voltaire; Condillac; l'Encyclopédie.

IV. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy; Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

V. French Theory of the State; La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

Students taking courses in French speculative philosophy are advised to take also one or more of the courses in German philosophy offered by Dr. Sterrett.

VI. The History of Civilization in France, based upon the works of the standard historians of France, particularly Guizot, Michelet, and Taine. Students in this course must be able to read the French of Villehardouin, Joinville, Froissart, and Commines.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several Departments of the Government and of Congress.

## German and Continental History.

PROFESSOR SCHOENFELD.

I. Literary Awakening in Germany in the time of Frederick the Great; critical study of the literary centers, Leipzig, Zürich, Berlin; the literary revolution and the Illuminati; critical investigation of Klopstock's Odes and Wieland's Oberon.

II. History of the Second Classical "Blüteperiode" to the time of Schiller's and Goethe's intimate friendship (1795); detailed investigation into Lessing's Literaturbriefe, Laokoon, and Hamburgische Dramaturgie.

III. Literature of the Renaissance in Germany; influence of the Italian and French Renaissance upon the same (with special reference to Georg Voigt, Janssen, Burckhardt, L. Geiger).

IV. History of the Middle Ages from the time of the evolution of European States to the rise of the Hohenstaufen Emperors (selections from the historical sources will be read and interpreted).

V. The Political Awakening in the Eighteenth Century; Causes of the French Revolution and the Napoleonic Empire.

VI. The Annihilation and Reconstruction of Prussia (H. von Treitschke); the Building up of the Modern German Empire (H. von Sybel).

The archives of the National Capital will be utilized for purposes of research.

## Philosophy.

PROFESSOR STERRETT.

I. Aristotle's Ethics and Politics.
II. The Ethical Theories of Hobbes, Bentham, Mill, and Spencer.
III. The Ethics of Kant and Hegel's Rechtsphilosophie.
IV. Kant's Critique of the Pure Reason and his Critique of the Judgment.
V. Hegel's Logik and Philosophie des Geistes.
VI. The Philosophy of Religion, Hegel and Pfleiderer.
VII. The Philosophy of History. Under this students may also specialize, selecting formative epochs of history, *e. g.*—
   *a.* The Conversion of the Roman Empire to Christianity.
   *b.* The Rise and Formation of the Temporal Power of the Papacy.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Other equivalent courses may be arranged with the Professor.

Notice is also called to the courses on French Philosophy given by Dr. Lodge, as supplemental to the above and to the series of papers given before the Society for Philosophical Inquiry.

PROFESSOR HARRIS.

Dr. Harris will coöperate with Dr. Sterrett in carrying out additional courses.

1. Philosophy of History, and
2. The History of Philosophy.

## Political Philosophy.

PROFESSOR LODGE.

I. A comparative study of the political institutions of France, England, and the United States, based upon Guizot, Taine, Freeman, Stubbs, Boutmy, De Tocqueville, Bryce, C. E. Stevens, Burgess, and Maine.

II. A course in international law; its genetic idea; its history; its present status, and the specific contributions made by the Government of the United States to the improvement of the law of nations. The work is based upon Wheaton, Calvo, and Maine, as well as on the material furnished by the archives of the Department of State.

III. A course in political economy, dealing with the problems of socialism, coöperation, and distribution, based upon the chief French, English, Italian, and German authorities.

Students in all these courses must be able to read French fluently.

## Mathematics.

PROFESSOR GORE.

For the degree of Master of Arts:

1. Higher Plane Curves; Modern Higher Algebra.
2. Mathematical reading: Carr's Synopsis of Pure Mathematics; Láska's Mathematische Formeln-Sammlung; Gore's Factors and Formulas.
3. Advanced Integral Calculus; Theory of Equations.

For the degree of Doctor of Philosophy:

1. Functions: General Theory of Functions, Harkness and Morley; Abelian Functions, Briot, Théorie des Fonctions Abéliennes.

PROFESSOR HODGKINS.

Differential Equations.

Students in this course meet with the class in Differential Equations in the Scientific School (two hours a week), studying there Johnson's Differential Equations. This will be supplemented by lectures and by the study of Forsyth's Differential Equations (two hours a week).

Determinants.

The first part of the year will be given to the mastery of some elementary book on Determinants, such as that by Weld. This will be followed by a study of Scott's Theory of Determinants and of Muir's Theory of Determinants in the Historical Order of its Development.

## Applied Mathematics.

PROFESSOR FAVA.

I. GEOMETRY OF POSITION, developed by projective methods, based on the works of von Staudt, Moebius, Steiner, Poncelet, etc.

II. GRAPHIC STATICS.—This science can be studied with either of two objects in view:

*a*. As a part of applied mechanics.

*b*. As a part of Analytical Mechanics, based on geometry of position.

III. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Church, Ritter, Rankine, Bresse, etc.

## Solar Physics.

PROFESSOR BIGELOW.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Physics in its relation to Meteorology.

I. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots, and allied problems in solar physics, giving the grounds for the recent developments of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

II. COSMICAL ELECTRICITY AND MAGNETISM.—The two fields of force emanating from the sun, their mode of propagation through the æther, the

theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

III. TERRESTRIAL MAGNETISM.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instruments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of the science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

IV. METEOROLOGY.—The thermodynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

## Theoretical Astronomy.

PROFESSOR FRISBY.
PROFESSOR WINLOCK.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

I. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers's Method, Abhandlungen, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

II. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's Theoria Motûs. Books of reference, as above.

III. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

IV. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und

Dritter Band. Books of reference, as above. The method of the variation of the six elements will be first taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

V. The Theory of General Perturbations. Tisserand, Méchanique Céleste. An abstract should here be made for the initiation of the student into this subject. Books of reference: Laplace, Méchanique Céleste; Lagrange, Méchanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, etc.

VI. General Spherical Astronomy. Chauvenet's or Brünnow's Spherical Astronomy.

## Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

## Chemistry.

PROFESSOR MUNROE.

Courses of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

PROFESSOR CLARKE.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

PROFESSOR WILEY.

Professor WILEY will direct special researches in Agricultural, Chemistry provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

I. A study of the products, ptomaines and albumoses, of the growth of germs, either in the animal body or upon artificial media.

II. The influence of these substances in causing disease and their relation to, as well as their effect in, insuring immunity.

## Zoölogy.

PROFESSOR GILL.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

## Anthropology.

DR. MASON.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

I. Study of the races of man.

II. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

III. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, Ratzel, and Lang are used as text, with readings in the journals of the Anthropological societies.

## Comparative Osteology and Artistic Anatomy.

PROFESSOR SHUTE.

The special studies in this branch comprise—

I. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations, with especial attention to Homologies; the Human Form and its Variations (as affected by occupation, age, sex, disease).

II. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superficies of the Living Model as will enable the artist to understand the Statics and Kinetics of the Human Body; Methods of Studying the Proportions of the Human Body, etc.

## Meteorology.

PROFESSOR ABBE.
PROFESSOR MARVIN, Associate.

Advanced study in Meteorology will be prosecuted under the three following subdivisions:

### I.—EXPERIMENTAL LABORATORY WORK IN METEOROLOGY.

In this field of work the student will investigate the theories of several meteorological instruments and push his study to some decided advance beyond the present state of our knowledge. New apparatus will be devised and constructed and the nature of its errors investigated theoretically and experimentally. Old series of observations, conducted with imperfect apparatus and under unfavorable conditions, will be reduced and corrected in the light of the newest discussions. The laws of such physical phenomena as have to be considered by meteorologists will be investigated by laboratory methods; among these, for example, are radiation, conduction and convection of heat, evaporation; the formation of dew, fog, cloud, rain, snow, hail, and lightning; the minute oscilla-

tions of wind and pressure; the pressure and movements of the wind; the absorption of radiations from the sun or earth by the atmosphere; the viscosity of the air, convective resistances, etc.

II.—PRACTICAL METEOROLOGY.

1. Daily weather charts of all nations.
2. International charts of the northern hemisphere.
3. Methods of projection in cartography.
4. Influence of land and ocean on weather and climate.
5. Empirical rules as to the variability and constancy of weather and climate in general, and computations of the index of variability of climate by the law of errors.
6. Weather types and typical weather charts, both for the United States and for the whole globe.
7. Predictions of daily weather by various methods, such as chance, persistency of current conditions and weather types.
8. Special rules for predicting frost, cold waves, rain, snow, wind.
9. Predictions for one, two, and three days.
10. Long-range predictions for seasons and climates.
11. Precise definition of climate by Hinrich's method, and long-range prediction of Hinrich's climatic exponent.
12. Climates in past geological ages.
13. Codification of empiric and rational rules for prediction.
14. Verification of predictions and the laws of chance involved therein.

III.—PHYSICAL AND THEORETICAL METEOROLOGY.

1. Insolation.
2. The absorption, conduction, and radiation of heat by the air, the earth, and the ocean, and the resulting distribution of temperature.
3. The thermo-dynamics of the atmosphere.
4. Convective equilibrium.
5. The general circulation of a dry atmosphere on a rotating globe.
6. The influence of oceans and continents, and the motions of the actual atmosphere.
7. Local cyclones and anti-cyclones.
8. Atmospheric waves and tides.
9. The distribution of fog, cloud, rain, and snow.
10. Optical and electrical phenomena.

## Botany.

PROFESSOR SCRIBNER.

1. Advanced systematic study of the various groups and families of plants.
2. Plant histology and special morphology.
3. Plant distribution and economic plants.

## Geology.

PROFESSOR MERRILL.

This School offers facilities for advanced study in Physical Geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitive chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

During the first year the student may devote his time largely, if necessary, to perfecting himself in methods, to general work in the laboratory and in the field, to the examination of geological materials, and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote himself to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be

modified to suit individual cases in order that the student may be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

## Civil Engineering.

PROFESSOR FAVA.

The studies will embrace course 10 in the Department of Applied Mathematics, courses 17, 18, 13, 14, and 9 in the Department of Engineering, and course 9 in the Department of Chemistry of the Corcoran Scientific School.

According to the previous training of the student, some of the courses above may be omitted, and some courses embraced in the regular schedule of studies for the degree of Bachelor of Science in Civil Engineering (Course II) in the Corcoran Scientific School, to which students coming from other institutions might not have devoted the same amount of study as required in the Corcoran Scientific School, may be substituted therefor.

Courses 1 and 2 in the Department of Finance and courses 2 and 3 in the Department of Fine Arts of the same School must be taken unless previously studied. A course in political economy (Corcoran Scientific School, Department of Economics) is recommended. According to personal option, either Mechanical Engineering courses 6 and 7 of the Corcoran Scientific School, in a mechanical direction, or Engineering courses 15, 16, and 17 of the same school, in the line of Building Construction, are recommended; or special studies in some line of Engineering, such as Municipal Engineering, Railroad Maintenance, etc., etc., may be pursued. Practice in photography is advised. Owing to the large field for the employment of engineers in Spanish-American countries, the Spanish language is also recommended for study.

Besides these studies, a complex practical problem of a certain magnitude is given to the applicants for the degree of Civil Engineer as thesis

work. The candidate is placed in the same position as the practising engineer; he has to collect his own data, make his surveys, and is allowed to draw his information from all available sources; but he is expected to furnish a comprehensive report and exhibits, drawings, estimates, etc., which will be complete and throughout satisfactory both as to contents and form.

The subject selected is generally one of the great engineering problems of the day, either in the District of Columbia or elsewhere. After completion of his work each candidate is called upon to discuss and satisfactorily defend his thesis before a Board of Engineer Experts not connected with the University.

A special Board of Engineers awards the Fava prize for valuable theses.

### Mechanical Engineering.

PROFESSOR ZOPKE.
PROFESSOR FARWELL, Associate.

The following topics are offered:

1. Summary of Mechanical Engineering. Two hours.
2. Thermodynamics and Application to Theory of Hot-air, Gas, Gasoline, and Steam Engines. Three hours.
3. Construction of Single and Compound Steam-engines. Four hours.
4. Designing of Steam-engines as Constructive Exercises to 3. Four hours.
5. Boiler Construction. Two hours, one term.
6. Designing of Boilers. Two hours, one term.
7. Testing and Management of Engines and Boilers. Two hours, one term.
8. Critical Inspection of Power-plants, followed by a class discussion of the same.
9. Hydraulic Machinery. Two hours, one term.
10. Designing of Hydraulic Machinery. Two hours, one term.
11. Kinematics. Three hours.
12. Construction of Plants. Two hours, one term.
13. Designing of Plants. Four hours, one term.
14. Multiple-expansion Steam-engines and Steam-engines for Special Purposes. Four hours, one term.
15. Designing of Steam-Engines as Constructive Exercises to 14. Four hours, one term.
16. Machine Tools. Three hours.
17. Designing of Machine Tools. Two hours, one term.

## Electrical Engineering.

PROFESSOR WOLFF.

Students having obtained the degree of Bachelor of Science in Electrical Engineering (Course III) or its equivalent may receive the degree of Electrical Engineer upon satisfactorily completing a course of one year in the Graduate School, embracing the following studies:

1. Advanced laboratory work.

2. Designing of Dynamo-electric Machinery.

3. Transmission of Electrical Energy.

4. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.

5. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, and estimate of cost.

Concomitant studies in Mechanical Engineering and Advanced Physics are required. Students are recommended to take besides Higher Mathematics, German, French, and Chemistry.

Advanced courses in various branches of physics, such as Electricity, Thermodynamics, theory of Light and Sound, and the like, are offered to candidates for the degrees of Master of Science and Doctor of Philosophy.

## Architecture.

PROFESSOR HORNBLOWER.
PROFESSOR AMATEIS.

Classical styles; Interior architecture and decoration; Construction of buildings.

Thesis must embody the results of the complete study of a structure of elaborate and ornamental character.

## Bibliography and Bibliology.

PROFESSOR BOLTON.

Professor BOLTON will exercise a general supervision over the bibliographic work done in this School and will advise students as to the best methods of work and the accepted methods of presentation of results.

Unusual opportunities are afforded students in this subject in the meetings of the Washington Library Association, which are held at stated intervals at the Columbian University.

## Doctorate Disputation.

The defense of the theses required of candidates for the degree of Doctor of Philosophy was held publicly in the Hall of the University June 5, 1895. The candidate who successfully defended his thesis, the title of his thesis, and the members of the board attacking the same were as follows:

Candidate: GEORGE WESLEY HAMNER, A. B., A. M., LL. B., LL. M.
Thesis: Researches upon the Government of the Creek Indians.
Experts: H. C. YARROW, M. D.
ALBERT S. GATSCHET, PH. D.
ROBERT F. THOMPSON, A. M.

## Engineering Disputation.

The defense of the theses of the candidates for the degree of Civil Engineer was held publicly in the Hall of the University June 7, 1895. The candidate who successfully defended his thesis, the title of his thesis, and the members of the board attacking the same were as follows:

Candidate: PERLY EGBERT STEVENS.
Thesis: Design for a Union Depot for the Railroads entering Washington.
Experts: JOSEPH C. HORNBLOWER.
CHANNING M. BOLTON, C. E.
JOHN M. CARRIÈRE.

## STUDENTS IN ATTENDANCE.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Frank Dexter Fletcher | French Philology | New York | 1700 14th St., N. W. |
| N. S. D. Harrison | French Philology | Virginia | Pension Office. |
| Zenobia Porter | Continental History | New York | 813 15th St., N. W. |
| Sara West | Continental History | Germany | 203 G St., N. W. |

## ADMITTED AS CANDIDATES FOR DEGREES.

### For the Degree of Electrical Engineer.

| NAME. | RESIDENCE. | ADDRESS. |
|---|---|---|
| Frank Lloyd Averill<br>C. E., Columbian University, 1891. | New York | 1479 Columbia Road. |
| David Henry Sleem<br>A. B., 1879; M. D., 1887, Bryant College.<br>M. D., New York University, 1889. | New York | Washington Loan and Trust Co. Building. |

## For the Degree of Doctor of Philosophy.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Victor King Chestnut ..... B. S., University of California, 1890. | Major, Plant Chemistry; Minors, Organic Chemistry, Botany. | California..... | 1104 P St., N. W. |
| Oliver Lanard Fassig ..... B. S., Ohio State University, 1882. | Major, Meteorology; Minors, Solar Physics, Laboratory Physics. | Ohio ..... | U. S. Weather Bureau. |
| Max Georgii ..... LL. B., LL. M., National University. Staats Examen Polytechnic School, Stuttgart. | Major, Modern History; Minors, History of Law, German Literature. | Minnesota ..... | 606 F St., N. W. |
| Revere Randolph Gurley..... M. D., Columbian University, 1884. | Major, Zoölogy; Minors, Botany, Geology. | Virginia ..... | 71 N. Y. Ave., N. E. |
| William Perry Hay..... B. S., 1891; M. S., 1892, Butler University. | Major, Zoölogy; Minors, Botany and Geology. | Dist. of Columbia.. | 478 O St., N. W. |
| Albert Mayer Hilliker..... B. D., Seabury Divinity School, 1890. | Major, Philosophy; Minors, History and Ethics. | Minnesota ..... | 230 12th St., S. W. |
| Charles Arthur Hollick ..... Ph. B., Columbia College, 1879. | Major, Palæobotany; Minors, Botany, Mineralogy. | New York ..... | U. S. Geological Survey. |
| Edward Clark Hudson..... ..... A. B., 1884; A. M., 1894, Hiawassee College. | Major, Greek; Minors, Latin, French. | Texas..... | Maltby House. |
| John Scott Johnson ..... ..... B. S., 1893; A. M., 1894, Columbian University. | Major, Philosophy; Minors, Economics, History. | Texas ..... | 1460 Corcoran St., N. W. |

| | | | |
|---|---|---|---|
| James Stephen Lemon.....<br>B. A., 1864; M. S., 1867, Wesleyan University, Middletown, Conn. | Major, Psycho-physics; Minors, Philosophy, Climatology. | Massachusetts..... | 1910 Vt. Ave., N. W. |
| Thomas James Murray .....<br>B. A., 1889; M. A., 1890, St. Mary's College, Baltimore.<br>LL. B., Georgetown University, 1893. | Major, Continental History; Minors, Philosophy VIII, History III. | Dist. of Columbia.. | 423 N. Y. Ave., N. W. |
| Edwin Barnes Niver.....<br>A. B., Brown University, 1893.<br>B.D., Episcopal Theological School, Cambridge, 1892.<br>A.M., Columbian University, 1895. | Major, Philosophy; Minors, Ethics II and III. | Maryland ..... | 1332 R St., N. W. |
| Henry Rogers Pyne .....<br>A. B., 1893; A. M., 1894, Columbian University. | Major, Greek; Minors, Latin, French. | Maine..... | 1702 S St., N. W. |
| John Merriam Reynolds.....<br>B. E., 1867; M. E., 1869, Pennsylvania State Normal School.<br>A.M., Columbian University, 1895. | Major, Philosophy; Minors, Continental History, Political Philosophy. | Pennsylvania ..... | 1309 Conn. Ave., N.W. |
| C. M. Lacey Sites .....<br>A. B., 1887; A. M., 1890, Ohio Wesleyan University.<br>LL. B., National University, 1890. | Major, Political Philosophy; Minors, Philosophy VIII, French Philosophy V. | Ohio ..... | 1315 Clifton St. |
| Timothy William Stanton .....<br>B. S., 1883; M. S., 1895, University of Colorado. | Major, Palæontology; Minors, Zoölogy, Mineralogy. | Colorado ..... | 205 13th St., N. W. |
| Alexander Summers .....<br>B. A., 1876; M. A., 1893, University of Tennessee. | Major, Political Philosophy; Minors, Philosophy VIII, Comparative Politics. | Tennessee..... | Bureau of Education. |
| Cabell Whitehead.....<br>B. M., Lehigh University, 1885.<br>M. S., Columbian University, 1895. | Major, Chemistry; Minors, Mineralogy, Metallurgy. | Idaho ..... ..... | 1114 N. H. Ave., N. W. |

Candidates for degrees, 36; special students, 4; total, 40.

# THE LAW SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
PRESIDENT.

THE HON. WALTER S. COX, LL. D., DEAN,
(Associate Justice of the Supreme Court of the District of Columbia,)
Professor of the Law of Real Property, of Contracts, of Crimes and Misdemeanors, and of Commercial Paper.

THE HON. JOHN M. HARLAN, LL. D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Torts, and of Personal Property.

THE HON. WILLIAM A. MAURY, LL. D.,
(Sometime Assistant Attorney General of the United States,)
Professor of Equity Jurisprudence, of Common Law and Equity Pleading, of the Law of Evidence, and of the Jurisdiction and Practice of the Federal Courts.

THE HON. DAVID J. BREWER, LL. D.,
(Associate Justice of the Supreme Court of the United States,)
Professor of the Law of Corporations.

GEORGE H. EMMOTT, LL. M.,
Lecturer on the Civil Law.

HENRY E. DAVIS, LL. M.,
(Sometime Assistant Attorney of the District of Columbia,)
Lecturer on the History of Law.

WILLIAM F. MATTINGLY, ESQ.,
(of the Washington Bar,)
Lecturer on Practical Commercial Law.

THE HON. ANDREW C. BRADLEY,
(Associate Justice of the Supreme Court of the District of Columbia,)
Lecturer on Criminal Law and on Criminal Pleading and Practice.

THE HON. BENJAMIN BUTTERWORTH,
(Sometime United States Commissioner of Patents,)
Professor of the Law of Patents.

WILLIAM G. JOHNSON, LL. M.,
(of the Washington Bar.)
Professor of Legal Catechetics, Common-law Practice, and Judge of the Moot Court.

LEE DAVIS LODGE, PH. D.,
Professor of Public and Private International Law.

MELVILLE CHURCH, LL. M.,
Professor of the Law of Patents.

**Court of Appeals.**

WILLIAM F. MATTINGLY, *Chief Justice.*
HENRY E. DAVIS,
CHARLES W. NEEDHAM, } *Associate Justices.*

ROBERT H. MARTIN, ESQ.,
Secretary and Treasurer.

The Columbian University has decided to extend the period of study required for the degree of Bachelor of Laws to three years and the time for the degree of Master of Laws to four years. The time when this change will go into effect will be announced in the next Catalogue.

The sessions of the Law School of the Columbian University are held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

**Admission.**

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not

spent one year either at this or some other law school, or performed a corresponding amount of study under the direction of a member of the bar. Candidates for admission to the Senior Class will be required to sustain a satisfactory examination upon the studies of the Junior Year.

### Matriculation.

No fee is charged for matriculation, but the fee for at least one month's tuition must be paid in advance on registration. The register will be open for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

### Sessions.

The entire course of study in the undergraduate department embraces two years. The next annual session will begin on Wednesday, September 30, 1896, and end on the Tuesday next before the second Wednesday in June. The exercises of the School begin daily at 6 o'clock p. m., which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

### Courses of Instruction.

The School has four classes—a Junior and a Senior in the undergraduate department, a graduate Class in Practice, and a Class in Patent Law and Patent Law Practice.

### Junior Class.

PROFESSOR COX,

(Associate Justice of the Supreme Court of the District of Columbia.)

Mr. Justice Cox, aiming to secure for the students of the Junior Class as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries,

Parsons on Contracts, and Byles on Bills, as text-books. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teachings of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study of law; and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

The students in both the Junior and the Senior classes are required to attend this course.

### On Domestic Relations, on Personal Property, on Commercial Paper, and on Torts.

PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

Mr. Justice HARLAN gives a course of lectures on each of these subjects, meeting the classes on Monday and Wednesday evenings, and following the general order and arrangement pursued respectively in Browne on Domestic Relations, Smith on Personal Property, and Pollock on Torts, there is no mere study of these as text-books. Mr. Justice HARLAN'S aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of fundamental principles. This course extends through the whole scholastic year, and the attendance of both the Senior and the Junior Classes is required.

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The students in both the Junior and the Senior classes are required to attend this course.

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PROFESSOR HARLAN,

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Mr. Justice HARLAN gives a course of lectures on each of these subjects, meeting the classes on Monday and Wednesday evenings, and following the general order and arrangement pursued respectively in Browne on Domestic Relations, Smith on Personal Property, and Pollock on Torts, there is no mere study of these as text-books. Mr. Justice HARLAN'S aim is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of fundamental principles. This course extends through the whole scholastic year, and the attendance of both the Senior and the Junior Classes is required.

## The Senior Class.

### PROFESSOR MAURY,

(Sometime Assistant Attorney General of the United States.)

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text-book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleadings and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleading and Practice in Equity being the text-books used under these heads. The closing part of the course is occupied with the law of Partnership considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies: Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text-book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

## Legal Catechetics.

### PROFESSOR WILLIAM G. JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on several days of each week) conducted by Professor WILLIAM G. JOHNSON, a graduate of the School, who is familiar with its

methods of instruction. His "quizzes" are additional and supplemental to those of Professors Cox and MAURY.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text-books and the lectures, the student is called upon to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *viva voce* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

## Constitutional Law.

### PROFESSOR HARLAN,

(Associate Justice of the Supreme Court of the United States.)

A course of lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN, of the Supreme Court of the United States.

In this course the student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examination of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of that instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These lectures are delivered every Saturday and are open to both the graduate and the undergraduate classes of the School.

## Law of Corporations.

PROFESSOR BREWER,

(Associate Justice of the Supreme Court of the United States.)

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So great a volume of business is done by corporations today, that they furnish a large amount of the litigation; and, because of their importance, special attention is given to this subject. An extensive course of lectures is delivered by Mr. Justice BREWER, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of today, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

## International Law.

PROFESSOR LODGE.

After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its historical growth, the instructor seeks to give a brief exposition of the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications, alike to the conduct of nations and to the conduct of individuals.

These Lectures are open to both the graduate and the undergraduate classes of the School.

## The Civil Law.

PROFESSOR EMMOTT.

Professor GEORGE H. EMMOTT, A. M., LL. M., a graduate of the University of Cambridge, England, delivers every year a course of Lectures on the Civil Law, in which the principles of the Roman jurisprudence are expounded under given heads, as well for their intrinsic historical interest as for the light they shed on English Common Law.

### Criminal Law Pleading and Practice.

The Hon. ANDREW C. BRADLEY, Associate Justice of the Supreme Court of the District of Columbia, delivers a series of Lectures on Criminal Law. These lectures will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, treating particularly of other principles and of offenses which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The Lectures upon Criminal Procedure will treat of pleading and practice in criminal cases, and in discussing the procedure at the trial of criminal cases the difference between criminal and civil practice in regard to the rules of evidence will be pointed out.

The course is open to the undergraduate classes of the School.

### Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to the undergraduate classes of the School.

### The History of Law.

Professor HENRY E. DAVIS, A. M., LL. M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and in the United States.

The course is open to the undergraduate classes of the School.

## GRADUATE COURSE IN PRACTICE.

A graduate course of instruction in Common Law Practice and in Equity Pleading and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors WILLIAM A. MAURY and WILLIAM G. JOHNSON as a supplement to the undergraduate course of the Law School. This course leads to the degree of Master of Laws.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleading and in the mode of conducting an equity case. The text-book employed will be Mitford and Tyler's Equity Pleading and Practice.

During a considerable portion of the term Professor MAURY holds a chancery court, in which students are exercised in equity pleading and practice and all the details in the conduct of equity causes.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the Courts of the United States.

In the Common Law Branch the students use, under the direction of Professor JOHNSON, a work on practice prepared by Professor COX, after which they are exercised in the conduct and trial of cases, and thus taught to apply their theoretical learning in pleading, practice, and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's Law of *Nisi Prius*.

During more than half the term the exercises are those of a *Nisi Prius* Moot Court, presided over by Professor JOHNSON.

In this course, statements of facts are furnished to the students, who are required to bring and defend proceedings in equity and suits at law thereon, two students being assigned as counsel on each side. By this means they are required to determine the form of action or proceeding, to prepare the pleadings, to produce the evidence, and actually to try the cases, and are thus exercised in all the features and details of the preparation and conduct of an action at law or proceeding in equity as in actual practice.

### Conditions of Admission to the Graduate Course in Practice.

Candidates for admission to this course are required to furnish evidence that they have been diligent and successful students of law for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission. At the end of the course all such students who shall sustain a satisfactory examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied; but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition

precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of eight months, is *fifty dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

A charge of ten dollars is made for diplomas.

### Court of Appeals.

Supplementary to this is the Court of Appeals, to which these cases may be taken and in which the student is instructed and exercised in the course of procedure by writ of error and appeal and the preparation of records on appeal, and the preparation of briefs and argument of causes in appellate courts, the purpose being to drill the student in all the details of a case in actual practice, from the presentation of the facts by the client to the final disposition thereof in the court of last resort.

## A SPECIAL COURSE IN PATENT LAW AND PATENT LAW PRACTICE.

PROFESSOR CHURCH.

In view of the growing importance of the subject, and in response to the urgent request of a number of members of the bar and graduates in law, the Board of Trustees of the University decided to inaugurate at the opening of the Law Department, on the 1st of October, 1895, a new special course that shall serve as a thorough preparation for those who contemplate entering that most interesting department of jurisprudence—the law of patents.

This course in practice will cover a period of eight months, with two lectures or sessions of the Moot Court each week.

The degree of Bachelor of Patent Laws will be conferred upon those who pass a satisfactory examination at the close of the term.

Only graduates in law or members of the bar will be eligible to this degree.

The course will embrace a series of lectures covering the following subjects, among others: The organization of the District and Circuit Courts, the Court of Claims, the Circuit Courts of Appeal, the Court of Appeals of the District of Columbia, and of the Supreme Court; the powers of and distribution of jurisdiction among such courts relative to patent suits;

the nature of the several kinds of suits that may be brought under the patent statutes; the pleadings appropriate to such suits; the production of evidence in patent causes; the various forms of process and modes of serving same, and the various incidental details of procedure arising in the practical course of a patent suit; judgments and decrees and the modes of securing the entry of the same; proceedings on appeal, including explanation of forms and pleadings employed in appellate procedure; Patent Office interferences.

In addition to these lectures on pleadings and practice, a Moot Court will be organized for the trial of patent causes and Patent Office interferences. The court will be provided with a clerk and a marshal, and will be conducted in such a manner as to familiarize those participating with the details of practical procedure so necessary to be known by the practitioner, yet so difficult to be acquired from the books.

Tuition for the course, $40.

A charge of ten dollars is made for diplomas.

### Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This Society holds public exercises under the auspices of the University, at the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

### Library and Reading-room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, and books of reference, is open for study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. Attached to the Library is a reading-room supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

### Special Facilities.

The Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurispru-

dence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

## Examination and Graduation.

The Junior class will be examined at the end of the year upon Blackstone's Commentaries; Kent's Commentaries, vol. 4; Parsons on Contracts; Byles on Bills; Brown on Domestic Relations; Pollock on Torts, and Cooley's Constitutional Law.

All candidates for graduation are required to pass an examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who have passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

## Prizes.

A prize of $100, called "The Parker Prize," in honor of its donor, the Hon. MYRON M. PARKER, is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of $50, called "The Britton Prize" in honor of its founder, Colonel ALEXANDER T. BRITTON, is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of $40, one of $30, and one of $20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior Class as shall compete for them and shall pass a successful examination for the degree of Bachelor of Laws.

Two prizes for excellence in debate are awarded by the Debating Society.

## Prize Men in 1894-'95.

Parker Prize, EDGAR H. MAY.
Britton Prize, JAMES MCILVAINE GRAY.
First Essay Prize, ADOLPHE MONELL SAYRE.
Second Essay Prize, ARTHUR F. COSBY.
Third Essay Prize, ANDREW Y. BRADLEY.
First Debater's Prize, HARRY C. EVANS.
Second Debater's Prize, J. MARTIN SCRANAGE.

## Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom the Faculty may have selected for that purpose.

## Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* a year, payable in advance, half yearly, or in monthly installments, at the option of students. If a student shall for any cause intermit the studies of either his first or his second year at any point before graduation, or if, at the close of his second year, he shall fail, for any cause, to be graduated, the payments he may have made during either or both of these years will not work exemption from the regular dues of any subsequent year in which he may attend the School. A charge of *ten dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin-board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

## Admission to the Bar.

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the time spent in the Law School of the University is counted as part of the period of study required for admission.

### Columbian Law Society.

A society has recently been organized, under the name of the Columbian Law Society, by graduates of the Law School, for the investigation and discussion of practical legal questions and principles, and particularly those relating to the District of Columbia. Regular meetings of the Society are held in the University building on the second Friday of every month except June, July, and August. All graduates of the Law School who have been admitted to the bar of the District of Columbia are invited to become members of this Society. Further information can be obtained from the President of the Society, Mr. GEO. FRANCIS WILLIAMS, 452 D street northwest, or from its Secretary, Mr. LOUIS A. ROSAFY, 505 Second street northeast.

### University Lectures.

Students of the Law School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than law lectures, given in the University Hall by applying to the Dean.

## PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting of June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

The organization of the new School has been arrested for the want of adequate endowment, but a beginning in that direction will, it is hoped, be made during the next scholastic year.

In this School it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions (after the manner of

Freeman in his "Comparative Politics") and along the line of legal institutes (after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal jurisprudence, of International Law, of Law Reform, and of Codification.

## Text-books used in the Law School.

### JUNIOR CLASS.

| | |
|---|---|
| Blackstone's Commentaries (Sharswood's edition), 2 volumes | $7 50 |
| Kent's Commentaries (Holmes and Barnes's edition) | 12 00 |
| Or (Lacy's edition), third and fourth volumes | 10 00 |
| Parsons on Contracts, 3 volumes | 16 00 |
| Cox's Questions | 2 50 |
| Byles on Bills | 5 50 |
| Cooley's Constitutional Law | 3 00 |
| Clark's Criminal Law | 3 50 |
| Browne's Domestic Relations | 2 25 |
| Pollock on Torts | 2 50 |
| Webb's Pollock on Torts | 5 00 |
| Smith's Personal Property | 4 00 |

### SENIOR CLASS.

| | |
|---|---|
| Stephen on Pleading (Tyler's edition) | 2 50 |
| Greenleaf on Evidence, volume 1 | 5 50 |
| Smith's Manual of Equity | 3 00 |
| Mitford and Tyler's Equity Pleading | 5 00 |

### GRADUATE COURSE.

| | |
|---|---|
| Cox's Practice | 3 00 |
| Mitford and Tyler's Equity Pleading | 5 00 |

Good second-hand copies of the books used in the Junior Class can be procured from $20 to $45, and in the Senior Class from $8 to $15.

## Schedule of Lectures in the Law School, 1895-'96.

| Days. | Hours. | Classes. | Professors. |
|---|---|---|---|
| Monday | 6 to 7 | Senior Class | W. A. Maury. |
| Monday | 7 to 8 | Post-graduate Class | W. A. Maury. |
| Monday | 8 to 9 | Post-graduate Class | W. G. Johnson. |
| Monday | 7 to 8 | Junior Class | J. M. Harlan. |
| Monday | 8 to 9 | Junior and Senior Classes | D. J. Brewer. |
| Tuesday | 6 to 7 | Junior Class | W. S. Cox. |
| Tuesday | 7 to 8 | Quiz Junior Class | W. G. Johnson. |
| Tuesday | 8 to 9 | Quiz Senior Class | W. G. Johnson. |
| Wednesday | 6 to 7 | Senior Class | W. A. Maury. |
| Wednesday | 7 to 8 | Post-graduate Class | W. A. Maury. |
| Wednesday | 8 to 9 | Post-graduate Class | W. G. Johnson. |
| Wednesday | 7 to 8 | Senior and Junior Classes | J. M. Harlan. |
| Thursday | 6 to 7 | Junior Class | W. S. Cox. |
| Thursday | 7 to 8 | Quiz Junior Class | W. G. Johnson. |
| Thursday | 8 to 9 | Quiz Senior Class | W. G. Johnson. |
| Friday | 6 to 7 | Senior Class | W. A. Maury. |
| Friday | 7 to 8 | Post-graduate Class | W. A. Maury. |
| Saturday | 6 to 7 | Junior Class | W. S. Cox. |
| Saturday | 7 to 8.30 | Junior and Senior Classes | J. M. Harlan. |

### Extraordinary Lectures.

Civil Law, Professor G. H. EMMOTT, Fridays at 7 p. m., beginning October 12.

Corporation Law, Professor D. J. BREWER, Mondays at 8 p. m., beginning October 25.

Criminal Law, Professor A. C. BRADLEY, Wednesdays at 8 p. m. after January 1.

Patent Law, Professor BENJAMIN BUTTERWORTH, Thursdays at 8 p. m. during March.

Commercial Law, Professor W. F. MATTINGLY, Wednesdays at 8 p. m. during January.

## STUDENTS OF LAW.

### Graduate Class in Practice.

| Name. | Address. |
|---|---|
| Robert Felder Able, South Carolina,<br>LL. B., Columbian University, 1895. | 911 M St., N. W. |
| Shosuke Abo, Japan, | 1310 N St., N. W. |
| William J. Acker, District of Columbia,<br>LL. B., Columbian University, 1895. | 1414 H St., N. W. |
| Brainard Avery, Vermont,<br>LL. B., Columbian University, 1895. | The Maltby. |
| Michael Francis Blenski, Wisconsin, | Weather Bureau. |
| Daniel J. Carr, Connecticut,<br>LL. B., Columbian University, 1895. | 1814 K St., N. W. |
| Ira Randolph Carter, Iowa,<br>LL. B., University of Michigan, 1895. | 815 L St., N. W. |
| John Barber Clark, Jr., District of Columbia,<br>LL. B., Columbian University, 1895. | 801 C St., S. W. |
| Alan Ogilvie Clephane, District of Columbia,<br>LL. B., Columbian University, 1895. | 1225 K St., N. W. |
| Ewing Cockrell, Missouri,<br>A. B., Harvard University, 1895.<br>LL. B., University of Virginia, 1895. | 1518 R St., N. W. |
| John MacLean Coit, South Carolina,<br>B. S., University of South Carolina.<br>LL. B., Columbian University, 1895. | 1211 Q St., N. W. |
| George Bruce Cortelyou, New York,<br>LL. B., Georgetown University, 1895. | 1218 North Carolina Ave., N. E. |
| Jesse Padon Crawford, Kentucky,<br>LL. B., Columbian University, 1895. | Bureau of Education. |
| J. A. Eakin Criswell, New York,<br>LL. B., Columbian University, 1895. | 632 East Capitol St. |
| Alfred Newton Dalrymple, District of Columbia,<br>LL. B., Columbian University, 1895. | 1704 Oregon Ave., N. W. |
| Allan A. Davis, Tennessee,<br>A. B., S. W. Baptist University, 1894.<br>LL. B., Columbian University, 1894. | 1021 11th St., N. W. |

| Name. | Address. |
|---|---|
| William R. Davis, New York,<br>LL. B., Columbian University, 1895. | 709 G St., N. W. |
| John E. Dawson, Massachusetts,<br>LL. B., Columbian University, 1895. | 1640 6th St., N. W. |
| Robert Oldner Deyer, Virginia, | 301 Massachusetts Ave., N. E. |
| Harry C. Evans, Iowa,<br>LL. B., Columbian University, 1895. | Winder Building. |
| George Corning Fraser, District of Columbia,<br>B. S., Princeton, 1894.<br>LL. B., Columbian University, 1895. | 1701 20th St., N. W. |
| Stephen W. Gambrill, Maryland,<br>LL. B., Columbian University, 1895. | Laurel, Md. |
| Daniel Edward Garges, District of Columbia,<br>LL. B., Columbian University, 1895. | 713 North Carolina Ave., S. E. |
| H. Prescott Gatley, District of Columbia,<br>LL. B., Columbian University, 1895. | 1833 5th St., N. W. |
| Frank Ferdinand Gentsch, Ohio,<br>LL. B., Columbian University, 1895. | 226 I St., N. W. |
| John C. Goodfellow, District of Columbia,<br>LL. B., Columbian University, 1895. | 1711 De Sales St., N. W. |
| Harvey B. Gram, Ohio,<br>LL. B., Columbian University, 1895. | 1329 10th St., N. W. |
| Alpha M. Hassler, South Dakota,<br>LL. B., Georgetown University, 1895. | United States Senate. |
| George C. Hazelton, Jr., District of Columbia,<br>LL. B., Columbian University, 1895. | 5 B St., N. W. |
| John H. Hazelton, District of Columbia,<br>A. B., Johns Hopkins, 1893.<br>LL. B., Columbian University, 1895. | 5 B St., N. W. |
| David Merrill Hildreth, New Hampshire,<br>B. S., Dartmouth, 1887.<br>M. S., Dartmouth, 1894.<br>LL. B., National University Law School, 1893. | 1104 East Capitol St. |

| Name. | Address. |
|---|---|
| Herman R. Howerstein, District of Columbia,<br>LL. B., Columbian University, 1895. | 1338 U St., N. W. |
| A. Roland Johnson, District of Columbia,<br>LL. B., Columbian University, 1895. | 1706 9th St., N. W. |
| E. C. Johnson, District of Columbia, | 1011 M St., N. W. |
| Eugene A. Jones, District of Columbia,<br>LL. B., Columbian University, 1895. | 2016 F St., N. W. |
| Lee Mason Jordan, Maryland,<br>LL. B., Columbian University, 1895. | 2016 O St., N. W. |
| Carter Brewster Keene, Maine,<br>LL. B., Columbian University, 1895. | 920 9th St., N. W. |
| Harry G. Kimball, District of Columbia,<br>LL. B., Columbian University, 1895. | 620 North Carolina Ave., S. E. |
| Harvey C. Long, Mississippi, | 30 Grant Place. |
| Marvin M. McLean, Texas,<br>LL. B., University of Texas, 1890. | Department of Labor. |
| Christopher K. Macey, New York,<br>LL. B., Columbian University, 1895. | 1119 I St., N. W. |
| Edward B. Markham, District of Columbia,<br>LL. B., Columbian University, 1895. | Benning's Road, D. C. |
| C. Carroll Martin, District of Columbia,<br>LL. B., Columbian University, 1895. | 1121 12th St., N. W. |
| Charles A. L. Massie, Georgia,<br>LL. B., Columbian University, 1895. | 1819 G St., N. W. |
| Edgar H. May, District of Columbia,<br>LL. B., Columbian University, 1895. | 2119 F St., N. W. |
| Norman R. Metcalf, Iowa,<br>LL. B., National University Law School, 1894.<br>LL. M., National University Law School, 1895. | 1333 F St., N. W. |
| Robert F. Miller, District of Columbia,<br>LL. B., Columbian University, 1893. | 1320 10th St., N. W. |
| George A. H. Mills, New York,<br>LL. B., Columbian University, 1895. | 1115 9th St., N. W. |
| Joel Nelson Morris, District of Columbia,<br>LL. B., Columbian University, 1895. | 909 M St., N. W. |

| Name. | Address. |
|---|---|
| Emerson R. Newell, Connecticut,<br>A. B., Yale, 1893. | Patent Office. |
| Edwin Alonza Niess, Pennsylvania,<br>LL. B., Columbian University, 1895. | 1008 F St., N. E. |
| Francis Nye, District of Columbia,<br>LL. B., Columbian University, 1895. | 936 O St., N. W. |
| Henry Orth, Jr., District of Columbia, | 1011 L St., N. W. |
| Edwin Howe Peery, Oregon,<br>LL. B., Missouri State University, 1881. | 1430 Corcoran St., N. W. |
| Jesse Weems Rawlings, District of Columbia,<br>LL. B., Columbian University, 1895. | 2016 F St., N. W. |
| Albert Thorpe Ryan, District of Columbia,<br>A. B., Yale University.<br>LL. B., Columbian University, 1895. | 1230 13th St., N. W. |
| Emil Charles Schneider, Illinois,<br>LL. B., Columbian University, 1895. | 803 I St., N. W. |
| John C. Scofield, Georgia,<br>LL. B., Columbian University, 1895. | 1447 Corcoran St., N. W. |
| Charles F. Sensner, Virginia,<br>LL. B., Columbian University, 1895. | 1415 Howard Ave., N. W. |
| Clem L. Shaver, West Virginia, | Weather Bureau. |
| F. Marion Smith, West Virginia,<br>LL. B., Columbian University, 1895. | 1514 K St., N. W. |
| Frederick George Stutz, District of Columbia,<br>LL. B., Columbian University, 1895. | 1507 Rhode Island Ave., N.W. |
| Daniel M. Sullivan, Massachusetts, | Treasury Department. |
| William Leonard Symons, Ohio,<br>LL. B., Columbian University, 1895. | 1017 15th St., N. W. |
| Morven Thompson, District of Columbia,<br>LL. B., Columbian University, 1895. | 1756 Corcoran St., N. W. |
| Harry Stanley Tullis, Montana,<br>LL. B., Columbian University, 1895. | Agricultural Department. |
| Richard K. Tyler, District of Columbia,<br>B. S., Dartmouth, 1890.<br>LL. B., Columbian University, 1895. | 1307 F St., N. W. |

| Name. | Address. |
|---|---|
| Guy Underwood, Ohio,<br>LL. B., Columbian University, 1895. | 215 1st St., S. E. |
| Harry Weston Van Dyke, New York,<br>LL. B., Columbian University, 1895. | 1301 K St., N. W. |
| Horace Greeley Van Everen, New York,<br>M. E., Cornell, 1891.<br>LL. B., Columbian University, 1895. | 2136 G St., N. W. |
| William Warren Werntz, Massachusetts.<br>LL. B., Columbian University, 1895. | 1106 8th St., N. W. |
| Horace Hampton Westcott, Pennsylvania,<br>LL. B., Columbian University, 1895. | 808 17th St., N. W. |
| Edgar Whitfield Williams, New York,<br>LL. B., Columbian University, 1895. | 633 Q St., N. W. |
| David Edgar Wilson, District of Columbia,<br>A. B., Western Maryland College, 1893.<br>LL. B., Columbian University, 1895. | 1113 East Capitol St. |
| Louis H. Wulfekuhler, Kansas,<br>LL. B., Kansas State University, 1895. | 806 H St., N. W. |

Graduate students ..... 75

## Seniors.

| Name. | Address. |
|---|---|
| Thomas A. Aiton, District of Columbia, | 413 B St., N. E. |
| Allen Diehl Albert, Jr., Pennsylvania, | 33 S St., N. W. |
| George Wilson Baker, District of Columbia, | 1745 Q St., N. W. |
| Marcus Baker, District of Columbia,<br>A. B., University of Michigan, 1870. | 1905 16th St., N. W. |
| Rufus H. Baker, New Hampshire,<br>A. B., Dartmouth, 1893. | 1432 S St., N. W. |
| Frank M. Barnes, Minnesota, | 1225 O St., N. W. |
| Grove Sidney Beardsley, New York, | 1704 Connecticut Ave., N. W. |
| Don P. Blaine, New York, | 163 F St., N. E. |
| Michael Francis Blenski, Wisconsin, | Weather Bureau. |
| F. C. Bliss, Pennsylvania, | 329 T St., N. W. |

| Name. | Address. |
|---|---|
| Eugene J. Bogen, Mississippi, | Treasury Department. |
| Louis Dillon Brosius, Pennsylvania, | 944 K St., N. W. |
| Lewis C. Brown, New York, | 1000 9th St., N. W. |
| H. Leroy Browning, Illinois, | 4 8th St., S. E. |
| H. G. Buchanan, Virginia, | Cairo Flats. |
| Sherman E. Burroughs, New Hampshire, A. B., Dartmouth, 1894. | 1432 S St., N. W. |
| Charles B. Calvert, Maryland, | 1750 Corcoran St., N. W. |
| George H. Calvert, Jr., Maryland, A. B., Maryland Agricultural College. | College Park, Md. |
| Luther Sidney Cannon, North Carolina, A. B., Wake Forest College (N. C.), 1890. | Pension Office. |
| Charles B. Cheyney, District of Columbia, B. A., Yale, 1894. | 3000 I St., N. W. |
| Frank L. Churchill, Wisconsin, | Pension Office. |
| Harry L. Clapp, Massachusetts, S. B., Massachusetts Institute of Technology, 1893. | 35 Patent Office. |
| Francis W. H. Clay, Kentucky, C. E., Cornell University, 1893. | 1013 15th St., N. W. |
| William H. Coleman, Pennsylvania, | 720 21st St., N. W. |
| Henry R. Conklin, Rhode Island, | 1118 New Hampshire Ave., N. W. |
| H. Karl Cooke, District of Columbia, | 1 Cooke Place. |
| Alfred S. Dalton, North Carolina, | 912 Massachusetts Ave., N. W. |
| Frank Parker Davis, Massachusetts, | Washington Loan and Trust Building. |
| Guy E. Davis, District of Columbia, | 3006 P St., N. W. |
| Joseph A. Dempf, District of Columbia, | 311 F St., N. E. |
| Robert Oldner Deyer, Virginia, | 301 Massachusetts Ave., N. E. |
| Theodore T. Dorman, New Jersey, S. B., Massachusetts Institute of Technology, 1893. | The Lincoln. |
| Bertram Martin Doyle, Kentucky, Ph. B., Riverside Seminary, 1892. | 722 12th St., N. W. |
| George Thomas Dunlop, Jr., District of Columbia, | 3102 Q St., N. W. |

| Name. | Address. |
|---|---|
| John Joy Edson, Jr., District of Columbia, | 1324 16th St., N. W. |
| Thomas Freeman Epes, Virginia, | 809 12th St., N. W |
| George W. Evans, Jr., Kentucky, | 201 East Capitol St. |
| John W. Ewing, Illinois, | 106 5th St., N. E. |
| Joseph R. Fague, District of Columbia, | 605 Massachusetts Ave., N. W. |
| James M. Fisher, Virginia, | 1212 9th St., N. W. |
| Arthur I. Flagg, Virginia, | 1012 13th St., N. W. |
| Justin E. Flannery, Ohio, | Post Office Department. |
| John M. Fleming, North Carolina, | 911 M St., N. W. |
| Arthur L. Flint, Ohio, | Patent Office. |
| William Edwards Fort, Georgia, | 2107 O St., N. W. |
| Samuel E. Fouts, Indiana, B. M. E., Purdue University. | 700 20th St., N. W. |
| L. William Gammon, New York, | 808 12th St., N. W. |
| John W. Gardner, New York, | 1115 O St., N. W. |
| Arthur Garner, District of Columbia, | 301 Massachusetts Ave., N. E. |
| Henry Livingston Godsey, Kentucky, | 824 13th St., N. W. |
| Bernard R. Goggins, Wisconsin, | 222 3d St., N. W. |
| John G. Gray, Delaware, | 1005 New Hampshire Ave., N. W. |
| Walter H. Gray, Maryland, | 220 11th St., S. W. |
| Thomas Newcome Greer, Tennessee, | Weather Bureau. |
| Frank R. Hanna, Kansas, | 700 20th St., N. W. |
| Charles B. Harding, Pennsylvania, | 55 New York Ave., N. W. |
| Thomas B. Harrison, Kentucky, | 722 12th St., N. W. |
| William Haywood, District of Columbia, | 1619 21st St., N. W. |
| Edward J. Henning, Wisconsin, B. L., University of Michigan, 1894. | Oxford. |
| Granby Hillyer, Georgia, | 1202 S St., N. W. |
| Charles A. Hines, District of Columbia, | Tennallytown, D. C. |
| Frank Samuel Holliger, Missouri, | 1226 Massachusetts Ave., N.W. |
| Jason C. Hundley, Virginia, | 1215 I St., N. W. |
| Erskine Hutcheson, Ohio, | 69 H St., N. W. |
| Arthur Johns, District of Columbia, | 1707 M St., N. W. |
| Fred. Johnson, New York, | Treasury Department. |
| Abraham B. Keefer, Pennsylvania, | 1334 Emerson St., N. E. |
| John H. Kennedy, Tennessee, | 1212 9th St., N. W. |
| Colton H. Lee, District of Columbia, | 1325 Vermont Ave., N. W. |
| Joel Thomas Livingston, Missouri, | 207 9th St., N. W. |

| Name. | Address. |
|---|---|
| Robert Francis Livingston, New York,<br>B. S., Cornell, 1894. | 939 Rhode Island Ave., N. W. |
| John W. Loder, Oregon,<br>B. S., McMinelle University, 1894. | 941 H St., N. W. |
| Lucas Powell Loving, Virginia, | 723 18th St., N. E. |
| Alexander D. Lunt, New York,<br>M. E., M. M. E., Cornell,<br>B. S., Worcester Polytechnic Institute. | Hotel Lincoln. |
| Ormsby McCammon, District of Columbia. | 1324 19th St., N. W. |
| John J. McGrain, Indiana, | 527 Florida Ave., N. W. |
| James Madison, Virginia, | 1023 Vermont Ave., N. W. |
| Charles Bott Mann, Mississippi, | Sixth Auditor's Office. |
| Henry M. Marshall, Virginia, | 2009 I St., N. W. |
| John A. Massie, District of Columbia, | 700 10th St., N. W. |
| Leonard J. Mather, District of Columbia, | 303 D St., N. W. |
| Guy Stanley Meloy, Maryland, | 118 C St., N. W. |
| Claude Elliott Miller, District of Columbia. | Civil Service Commission. |
| Edward P. Mills, Virginia, | 1012 New Hampshire Ave., N. W. |
| W. Roy Mitchell, Kansas, | 920 N St., N. W. |
| Frank Horace Moore, Kansas,<br>A. B., Kansas University, 1894. | 207 9th St., S. W. |
| Noble Moore, Tennessee, | 1115 Rhode Island Ave., N. W. |
| Henry Orth, Jr., District of Columbia. | 1011 L St., N. W. |
| Wilber A. Owen, Michigan, | 927 I St., N. W. |
| Charles W. Parker, Virginia, | 614 F St., N. W. |
| Thornton Jenkins Parker, Rhode Island, | 1731 H St., N. W. |
| Orin Patterson, Missouri, | 207 9th St., S. W. |
| Bennett Peck, District of Columbia, | 3263 O St., N. W. |
| Aurestus S. Perham, Maine, | 905 Westminster St., N. W. |
| Francis Mohun Phelps, Connecticut, | 1206 S St., N. W. |
| James Franklin Philp, New York, | 436 H St., N. W. |
| Aurelian Howard Pinney, Iowa, | 417 Massachusetts Ave., N. W. |
| William B. Pugh, Kentucky, | 722 12th St., N. W. |
| J. Castle Ridgway, Illinois, | 1632 17th St., N. W. |
| Frederick D. Riggles, Virginia, | 2121 G St., N. W. |
| Thomas M. Robertson, North Carolina, | 127 6th St., N. E. |

| Name. | Address. |
|---|---|
| Raymond Robins, Florida, | 1011 M St., N. W. |
| Henry J. Robinson, New York, | Pacific Building. |
| P. A. Roche, New York, | 1310 20th St., N. W. |
| S. West Russell, Maryland, | 509 11th St., S. W. |
| J. Martin Scranage, West Virginia, | Geological Survey. |
| Arthur B. Seibold, District of Columbia, | 110 Maryland Ave., N. E. |
| Clem L. Shaver, West Virginia, | Weather Bureau. |
| Alonzo W. Shunk, Pennsylvania, | 716 8th St., N. W. |
| Laban Sparks, Maryland, | 207 9th St., S. W. |
| Henry E. Stauffer, Delaware, | 3238 N St., N. W. |
| Charles H. Stevenson, Maryland, | Fish Commission. |
| W. P. Stone, Arkansas, | Washington Barracks. |
| E. Hume Talbert, District of Columbia, A. B., Curry University, 1895. | 220 6th St., S. E. |
| James A. Tanner, District of Columbia, | Washington Loan and Trust Building. |
| Blain W. Taylor, West Virginia, | 246 9th St., N. E. |
| William H. Taylor, Ohio, | |
| Robert W. Test, Illinois, | 223 E St., N. W. |
| Clark K. Tilton, District of Columbia, | 1330 Corcoran St., N. W. |
| A. Pearce Tomkins, Wisconsin, | 1108 16th St., N. W. |
| John Sarsfield Tucker, New York, | 808 12th St., N. W. |
| William Pinckney Walker, Ohio, | 936 23d St., N. W. |
| Charles G. Watson, Connecticut, | 1307 N St., N. W. |
| John L. Weaver, District of Columbia, | 412 T St., N. W. |
| Albert Lansing Wetmore, Virginia, A. B., Harvard, 1894. | 1216 18th St., N. W. |
| William James Whitaker, Pennsylvania, | 720 21st St., N. W. |
| George Dudley Whitney, New Jersey, | 1708 H St., N. W. |
| George M. Whitney, Virginia, | 1517 Columbia Road, N. W. |
| C. B. Wike, North Carolina, | 1300 Pennsylvania Ave., N.W. |
| Robert E. Wiley, Arkansas, | 1412 6th St., N. W. |
| James L. Wilmeth, Arkansas, | Sixth Auditor's Office. |
| Charles F. Wilson, District of Columbia, | 2004 G St., N. W. |
| William G. Worrell, Virginia, | 103 11th St., S. E. |
| Robert H. Young, District of Columbia, | 1577 Howard Ave., N. W. |
| Joshua S. Zimmerman, West Virginia, A. B., Randolph-Macon College. | 915 I St., N. W. |

Seniors.....135

## Juniors.

| Name. | Address. |
|---|---|
| Maurice Le Roy Alden, Kansas, B. A., University of Kansas, 1895. | 1528 I St., N. W. |
| William Wallace Anderson, South Carolina, | 1211 Q St., N. W. |
| Percy F. Archer, Maryland, | 234 New Jersey Ave., S. E. |
| Edward O. Asmussen, District of Columbia, | 1113 P St., N. W. |
| Harry Wilson Avis, West Virginia, | 2031 H St., N. W. |
| Raymond E. Baker, Kansas, | 210 5th St., N. E. |
| Howell Bartle, District of Columbia, | 1347 T St., N. W. |
| Louis Deshields Basye, Virginia, | 708 13th St., N. W. |
| William J. Becker, Illinois, M. E., Royal Polytechnique, Munich, Germany. | 6 Iowa Circle, N. W. |
| Arthur F. Belitz, Wisconsin, | 207 East Capitol St. |
| Frank M. Benjamin, District of Columbia, | 1852 5th St., N. W. |
| James Wilson Bevans, Jr., District of Columbia, | 1114 I St., S. E. |
| Howard R. Blanchard, Virginia, | 214 11th St., S. W. |
| John Stidham Bonebrake, District of Columbia, | 917 3d St , N. W. |
| Preston Boisseau, Virginia, | 809 12th St., N. W. |
| Philander A. Bowen, Jr., Maryland, | 1228 16th St., N. W. |
| S. D. Bradley, District of Columbia, | 1688 31st St., N. W. |
| Thomas A. Bradley, Kentucky, | 1688 31st St., N. W. |
| Frank Walter Brandenberg, District of Columbia, | 1745 Pennsylvania Ave., N. W. |
| John Waggaman Brawner, District of Columbia, | Wesley Heights, D. C. |
| Southwick C. Briggs, New York, | 1731 Q St., N. W. |
| Harry James Brown, New Hampshire, B. S., Dartmouth, 1895. | 1432 S St., N. W. |
| Claude L. Buchanan, Ohio, | Auditor War Department. |
| Arthur A. Buck, Massachusetts, | 700 20th St., N. W. |
| Norval Hamilton Busey, Jr., Maryland, | 1505 12th St., N. W. |
| Frank G. Butts, New York, | 1467 Kenesaw Ave., N. W. |
| Bernard J. Cain, District of Columbia, | 16 I St., N. E. |

| Name. | Address. |
|---|---|
| James T. Casey, Louisiana, | 1725 G St., N. W. |
| Oscar D. Clarke, District of Columbia, | 232 1st St., S. E. |
| Henry A. Conner, California, | 500 5th St., N. W. |
| William Beson Corwin, Pennsylvania, | Atlantic Building. |
| James Lewis Cousar, Arkansas, | 1012 12th St., N. W. |
| Frederick C. Croxton, Illinois, | 907 R St., N. W. |
| Clifford T. Curry, Ohio, | 910 I St., N. W. |
| John Bernard Dahlgren, District of Columbia, | 6 Lafayette Square, N. W. |
| George W. Dalzell, New York, | 433 Q St., N. W. |
| Samuel Dalzell, Pennsylvania, | 1605 New Hampshire Ave., N. W. |
| William F. Daughton, District of Columbia, | 1242 20th St., N. W. |
| Frederick L. Davis, Pennsylvania, | 1018 8th St., N. W. |
| John T. Davis, West Virginia, | 1725 9th St., N. W. |
| Herbert L. Deyo, Missouri, | 1011 13th St., N. W. |
| Henry G. Disch, Wisconsin, | 1732 5th St., N. W. |
| Harry Pelouze Doolittle, District of Columbia, | 2022 Hillyer Place, N. W. |
| Leon L. Dye, Mississippi, | 10 Grant Place, N. W. |
| Thomas C. Easterling, Kentucky, | 320 Massachusetts Ave., N. E. |
| Frank Warner Emmons, District of Columbia, | 1533 New Hampshire Ave., N. W. |
| William L. English, Illinois, | 1415 Q St., N. W. |
| Samuel Carroll Ford, District of Columbia, A. B., Columbian University, 1894. | 314 2d St., S. E. |
| Rudolph Forster, Virginia, | 213 5th St., S. E. |
| Jack W. Fort, Georgia, | 928 New York Ave., N. W. |
| Owen H. Fowler, District of Columbia, | 915 G St., N. W. |
| Peter Frank, New York, | 803 New Jersey Ave. |
| Edwin S. Frith, Tennessee, | 1445 Corcoran St., N. W. |
| Augustus Marion Fulk, Arkansas, | 1419 Corcoran St., N. W. |
| Francis Guy Fulk, Arkansas, | 1419 Corcoran St., N. W. |
| C. Vanmeter Gates, West Virginia, | Corner 7th and E Sts., N. W. |
| Edward S. Glavis, District of Columbia, | 1701 Q St., N. W. |
| Frederick B. Goodheart, Tennessee, | 636 L St., N. E. |
| Frederick Chaille Handy, Virginia, | 1331 12th St., N. W. |

| Name. | Address. |
|---|---|
| James E. Harper, South Carolina,<br>B. S., Furman University (S. C.). | 903 10th St., N. W. |
| Charles G. Harris, District of Columbia,<br>S. B., Worcester Polytechnic Institute, 1894. | 1917 Kalorama Ave., N. W. |
| William James Hays, Ohio, | 805 O St., N. W. |
| John Thilman Hendrick, Tennessee, | 1704 Q St., N. W. |
| George J. Hesselman, Illinois, | 403 G St., N. W. |
| Anthony Holmead, District of Columbia, | 1527 I St., N. W. |
| John H. Holt, Georgia,<br>B. S., Alabama Polytechnic Institute.<br>M. E., Alabama Polytechnic Institute.<br>E. E., Alabama Polytechnic Institute. | 306 C St., N. W. |
| James E. Jenks, Minnesota, | 1310 12th St., N. W. |
| Charles A. Johnson, District of Columbia, | 2011 S St., N. W. |
| Emerson Meredith Johnson, Indiana, | Auditor P. O. Department. |
| L. S. Johnson, Virginia, | 1460 Corcoran St., N. W. |
| Dwight V. Jones, Nevada, | 234 New Jersey Ave., N. W. |
| James E. Jones, Ohio, | 941 M St., N. W. |
| Arthur Augustus Jordan, Massachusetts,<br>A. B., Williams College, 1894. | 1706 Q St., N. W. |
| Frank Keiper, Indiana,<br>A. B., Wabash College, 1891.<br>B. M. E., Purdue University, 1893.<br>M. E., Purdue University, 1894. | 509 6th St., N. W. |
| William Balfour Ker, Washington, | 1405 G St., N. W. |
| Frank C. Kingsland, New York, | 1757 Madison Ave., N. W. |
| James Benton Lackey, District of Columbia, | 1612 Q St., N. W. |
| J. Wilmer Latimer, West Virginia, | 518 9th St., N. W. |
| Wilbur V. Leech, Washington, | 1715 14th St., N. W. |
| William F. Lemon, District of Columbia, | 629 G St., S. W. |
| Henry Leonard, District of Columbia, | 626 D St., S. E. |
| J. R. Audley Linke, New York, | Patent Office. |
| George R. Linkins, District of Columbia, | 1923 G St., N. W. |
| Monroe Creet List, West Virginia, | 1435 K St., N. W. |

| Name. | Address. |
|---|---|
| William H. Lopp, Indiana, | 512 F St., N. W. |
| Lanier McKee, District of Columbia, A. B., Yale, 1895. | 1752 Rhode Island Ave., N.W. |
| Ned McLaughlin, Ohio, Ph. B., Marietta College. | 929 K St., N. W. |
| George D. Mackay, Jr., New Jersey, | 916 H St., N. W. |
| E. Duncan Mallam, Washington, | 235 New Jersey Ave., S. E. |
| George Mallison, North Carolina, | 2031 P St., N. W. |
| Benjamin Martin, Jr., South Carolina, | 1806 S St., N. W. |
| William Mehn, Louisiana, | 1838 6th St., N. W. |
| David P. Moore, District of Columbia, | 1639 Marion St., N. W. |
| Frederick Lafayette Neville, New York, | General Land Office. |
| William Carey Oldfield, Michigan, B. S., Kalamazoo College. | 1011 M St., N. W. |
| John I. Painter, Iowa, | 127 E St., N. E. |
| Charles Oscar Paullin, Ohio, A. B., Johns Hopkins University, 1895. | 5th and Albany Sts., N. E. |
| William K. Payne, New York, | Hotel Normandie. |
| Elliott K. Pennebaker, Kentucky, | 1307 F St., N. W. |
| Herman Hoffman Philip, District of Columbia, | 1230 Connecticut Ave., N. W. |
| Frank K. Pilson, Pennsylvania, | 1708 5th St., N. W. |
| Spencer B. Prentiss, District of Columbia, B. S., Columbian University, 1895. | 1322 Yale St., N. W. |
| Ralph H. Riddleberger, Virginia, | 648 E Capitol St. |
| Samuel Roads, Jr., Massachusetts, | 1901 Q St., N. W. |
| Harry J. Robertson, Virginia, | 1534 I St., N. W. |
| William L. Rowland, Maryland, | 1824 9th St., N. W. |
| Herbert C. Sanford, Wisconsin, B. L., Lawrence University, 1893. | 1132 5th St., N. W. |
| Charles S. Shreve, Jr., District of Columbia, | 1543 8th St., N. W. |
| William Martin Smith, Ohio, | 92 M St., N. W. |
| John J. Snodgrass, Pennsylvania, | 520 21st St., N. W. |
| Gordon Sowers, District of Columbia, | 6 Cooke Place, N. W. |
| Augustus F. Specht, Pennsylvania, | 421 New Jersey Ave., S. E. |
| John M. Spellman, Texas, | 1920 Sunderland Place, N. W. |
| Maurice Spencer, Mississippi, | 138 3d St., N. W. |
| William S. Stamper, Virginia, | 1105 K St., N. W. |

| Name. | Address. |
|---|---|
| John Walton Steward, New Jersey, | 508 C St., S. E. |
| Barnwell S. Stuart, District of Columbia, | 1515 31st St., N. W. |
| La Verne Latimer Sullivan, Idaho, | 1621 13th St., N. W. |
| Willis Eugene Sullivan, Idaho, | 1621 13th St., N. W. |
| Otho H. W. Talbott, Maryland, | Rockville, Md. |
| Frederick L. Tarbox, New York, | 401 1st St., S. E. |
| William P. Taylor, Jr., Virginia, | St. James Hotel. |
| John Lilburn Thomas, Missouri, | 1244 Kenesaw Ave., N. W. |
| A. R. Thornton, Indiana, | 206 Indiana Ave., N. W. |
| George P. Tucker, Nebraska,<br>S. B., Worcester Polytechnic Institute, 1887. | 633 G St., N. E. |
| Benjamin Gray Tunstall, District of Columbia, | 1706 19th St., N. W. |
| Alfred Veazie, Maine, | |
| Harry O. Weaver, Ohio, | Fish Commission. |
| Richard M. Webster, Kentucky, | 812 11th St., N. W. |
| Ferdinand A. Weiler, District of Columbia, | 1316 V St., N. W. |
| Chester Wells, Pennsylvania, | 520 6th St., N. W. |
| Cyrus Campbell Wells, Illinois, | 1227 O St., N. W. |
| Joseph W. Welsh, Washington, | 2112 R St., N. W. |
| Roy C. Woodside, Missouri, | Weather Bureau. |
| William F. Woolard, Illinois, | 900 New York Ave., N.W. |
| John W. Wright, Illinois, | 1724 Corcoran St., N. W. |
| Hulbert Young, District of Columbia, | 1517 Howard Ave., N.W. |

Juniors.....137

**Students in Patent Law.**

| Name. | Address. |
|---|---|
| Acton Civill Bassett, New York,<br>A. B., Columbian University, 1893.<br>LL. B., New York Law School, 1894. | 1300 Pennsylvania Ave. |
| S. Hazen Bond, District of Columbia,<br>LL. B., Columbian University, 1894.<br>LL. M., Columbian University, 1895. | Smithsonian Institution. |
| William Du Vall Brown, District of Columbia,<br>LL. B., Columbian University, 1892.<br>LL. M., Columbian University, 1893. | 606 F St., N. W. |

| Name. | Address. |
|---|---|
| Norval Landon Burchell, District of Columbia,<br>LL. B., Columbian University, 1891.<br>LL. M., Columbian University, 1892. | 1102 Vermont Ave., N. W. |
| J. A. Eakin Criswell, New York,<br>LL. B., Columbian University, 1895. | 632 East Capitol St. |
| A. V. Cushman, Massachusetts,<br>LL. B., Columbian University, 1892.<br>LL. M., Columbian University, 1893. | 1906 H St., N. W. |
| Clarence W. De Knight, District of Columbia. | University Club. |
| Edward S. Duvall, Jr., District of Columbia,<br>LL. B., Georgetown University, 1893.<br>LL. M., Georgetown University, 1894. | 1628 6th St., N. W. |
| Edward Taylor Fenwick, District of Columbia,<br>LL. B., Columbian University, 1890. | 602 F St., N. W. |
| A. Irwin Gardner, District of Columbia,<br>B. S., Worcester Polytechnic Institute, 1889.<br>LL. B., Columbian University, 1892. | 1115 O St., N. W. |
| Frederick L. Harvey, District of Columbia,<br>LL. B., Columbian University, 1879.<br>LL. M., Columbian University, 1880. | 2146 Florida Ave., N.W. |
| William Moore Hatch, Vermont,<br>LL. B., Columbian University, 1889.<br>LL. M., Columbian University, 1890. | 1343 Wallach Place, N. W. |
| Walter R. Hensey, District of Columbia,<br>LL. B., Columbian University, 1894. | 406 M St., N. W. |
| Herbert W. T. Jenner, District of Columbia. | 608 F St., N. W. |
| J. Granville Meyers, Jr., District of Columbia,<br>LL. B., Columbian University, 1893.<br>LL. M., Columbian University, 1894. | 501 F St., N. W. |
| Gales Pritchard Moore, District of Columbia,<br>LL. B., Columbian University, 1894.<br>LL. M., Columbian University, 1895. | Atlantic Building. |

| Name. | Address. |
|---|---|
| E. H. Parry, Connecticut,<br>LL. B., Columbian University, 1894.<br>LL. M., Columbian University, 1895. | 602 F St., N. W. |
| George W. Rea, District of Columbia, | 1947 Vermont Ave., N. W. |
| William E. Schoenborn, New Jersey,<br>LL. B., National Law University, 1889. | Patent Office. |
| Edward G. Siggers, District of Columbia, | 306 F St., N. W. |
| Rexford M. Smith, Maryland,<br>LL. B., Columbian University, 1884. | 927 M St., N. W. |
| James M. Spear, District of Columbia,<br>LL. B., Georgetown University, 1891. | 1115 Harvard St., N. W. |
| Robert Watson, Jr., Maryland,<br>LL. B., Georgetown University, 1895. | 1454 Howard Ave., N. W. |
| David P. Wolhaupter, District of Columbia. | 67 N St., N. W. |
| William W. Wright, Jr., District of Columbia,<br>LL. B., Buffalo Law School, 1891. | 12 Gunton Building. |

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RECAPITULATION.

| | |
|---|---|
| Graduates..... | 75 |
| Seniors..... | 135 |
| Juniors..... | 137 |
| Patent Law..... | 25 |
| | 372 |

# THE MEDICAL SCHOOL.

## Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

D. KERFOOT SHUTE, M. D.,
Dean and Professor of Anatomy.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery and President of the Faculty.

WILLIAM W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine and Clinical Professor of Medicine.

ALBERT F. A. KING, M. D.,
Professor of Obstetrics and the Diseases of Women and Children and Dean Emeritus.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

E. A. DE SCHWEINITZ, M. D.,
Professor of Chemistry and Toxicology and Secretary-Treasurer.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Pædiatrics and Clinical Professor of Medicine.

HENRY L. E. JOHNSON, M. D.,
Professor of Gynecology and Clinical Professor of Gynecology.

THOMAS E. McARDLE, M. D.,
Professor of Minor Surgery.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology and Clinical Professor of Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology and Clinical Professor of Laryngology and Otology.

A. CLARK PATTERSON, M. D.,
Professor of Mental Diseases.

EDMUND L. TOMPKINS, M. D.,
Professor of Nervous Diseases and Clinical Professor of Medicine.

VERANUS A. MOORE, M. D.,
Professor of Normal Histology.

A. R. SHANDS, M. D.,
Professor of Orthopedic Surgery.

JOHN VAN RENSSELAER, M. D.,
Professor of Surgical Pathology and Clinical Professor of Surgery.

WALTER REED, M. D.,
Professor of Pathology and Bacteriology.

W. F. R. PHILLIPS, M. D.,
Professor of Hygiene.

GEORGE N. ACKER, M. D.,
Clinical Professor of Medicine.

G. WYTHE COOK, M. D.,
Clinical Professor of Medicine.

JAMES KERR, M. D.,
Clinical Professor of Surgery.

J. FOSTER SCOTT, M. D.,
Clinical Professor of Obstetrics.

L. W. GLAZEBROOK, M. D.,
Associate Professor of Clinical Medicine and Curator of the Museum.

FRANCIS P. MORGAN, M. D.,
Professor of Pharmacology.

J. W. BOVÉE, M. D.,
Clinical Professor of Gynecology.

OSCAR A. M. McKIMMIE, M. D.,
Examiner of Applicants for Matriculation.

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**Demonstrators.**

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

E. G. SEIBERT, M. D.,
Demonstrator of Chemistry.

W. S. WASHBURN, M. D.,
RUPERT NORTON, M. D.,
Demonstrators of Normal Histology.

W. F. R. PHILLIPS, M. D.,
JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
PRESLEY C. HUNT, M. D.,
EDWARD Y. DAVIDSON, M. D.,
JAMES ROBB CHURCH, M. D.,
VIRGIL B. JACKSON, M. D.,
JAMES STUART, M. D.,
W. M. WOOSTER, M. D.,
Assistant Demonstrators of Anatomy.

CHARLES J. HOPKINS, M. D.,
GEO. B. HEINECKE, M. D.,
LINCOLN JOHNSON, M. D.,
Prosectors to the Chair of Anatomy.

JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
Demonstrators of Minor Surgery.

EDWARD E. MORSE, M. D.,
Demonstrator of Obstetrics.

T. A. CLAYTOR, M. D.,
Assistant to the Chair of Theory and Practice of Medicine.

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The Seventy-fifth Course of Lectures begins on Wednesday, September 30, 1896.

The Introductory Lecture of the Course will be delivered by Prof. A. F. A. King on the 30th of September, and the regular lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The system of instruction adopted by the Medical Department of this University includes lectures on Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Surgery, Obstetrics, the Theory and Practice of Medicine, Hygiene, Bacteriology, Otology, Laryngology, Gynecology, Dermatology, Ophthalmology, Mental Diseases, Medical Jurisprudence, Nervous Diseases, Pædiatrics, Minor Surgery, Histology, Pathological Histology, Orthopedic Surgery, and Surgical Pathology.

These lectures are combined with clinical instruction in the various hospitals and dispensaries of the city. In these clinics the student is made familiar with the methods of examining patients, analyzing symptoms, making a diagnosis and prognosis of the cases, and recording medical histories. He is also taught to prescribe medicines and observe their effects, and to perform surgical operations.

Laboratory instruction is given in Chemistry, Histology and Pathological Histology, Bacteriology and Practical Pharmacy.

## University Lectures.

Students of the Medical School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than Law lectures, given in the University Hall by applying to the Dean.

## Advantages of Washington for Medical Study.

LIBRARIES, ARMY MEDICAL MUSEUM, NATIONAL MUSEUM, ETC.

The location of the University at the seat of the National Capital affords several striking advantages to the medical student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature. The Army Medical Museum is also open for inspection daily from 9 to 3 o'clock. With its unrivaled collection of anatomical and pathological specimens, illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind, this Museum presents a field for study superior to any other institution of the kind, either in this country or Europe.

Apart from these considerations, students from a distance have the opportunity of spending a winter profitably at the seat of the National Government during the sessions of Congress, the college lectures beginning at 5.30 in the evening. Ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and, of special interest to the medical student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of geat interest also are the Government Botanical Gardens and the grounds of the Agricultural Department, where the student of botany may find a rare collection of medicinal plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of many curious medical and surgical instrumeuts may be daily inspected from 9 to 3 o'clock, thus affording to the student an opportunity of studying the mechanical contrivances used in medicine, surgery, and obstetrics that is not to be obtained in any other city.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Surgery.

PROFESSOR THOMPSON,

**One of the Attending Surgeons to the Children's Hospital and to the Garfield General Hospital.**

The course will embrace Didactic Lectures upon the Principles and Practice of Surgery, and, as far as practicable, Clinical Instruction at the College.

Professor THOMPSON being the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Every effort will be made to teach Surgery in accordance with the latest developments of scientific research. At the College, operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction will be given by Professor McArdle and his Assistants in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### Theory and Practice of Medicine.

PROFESSOR JOHNSTON,

**One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.**

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes, which occur in many diseases, and to which all the structures of the body are liable. General or constitutional diseases and local diseases, or diseases of organs, are described in order.

As the subjects taught from the Chair are so numerous and cover so

wide a field, two years are required to complete the course. The lectures of each year, therefore, form a distinct and complete series, and it is necessary for the student to follow attentively the Lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress, and are absolutely necessary to a complete understanding of the studies of this Chair. They are considered obligatory studies.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

## Obstetrics and the Diseases of Women and Children.

### PROFESSOR KING,

One of the Consulting Physicians to the Children's Hospital.

This course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the Lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin, for demonstrating obstetrical operations, has been added to the illustrative apparatus.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

## Materia Medica and Therapeutics.

PROFESSOR PRENTISS,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence will be given to the Physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical Relations of the Materia Medica is not overlooked, but time does not admit of their being considered in great detail in the lecture-room. They are rather proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick-room.

It will be the endeavor of Professor Prentiss to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmacal Laboratory, in connection with the Chair of Materia Medica and Therapeutics, has been established.

In this laboratory the students will be taught the methods of making the different Pharmaceutical Preparations, such as Infusions, Decoctions, Tinctures, Syrups, and the like.

They will also be taught the compounding of prescriptions; the proper excipients for pills; incompatibles, especially such as produce dangerous compounds, and will be expected to actually compound working formulæ.

## Anatomy.

PROFESSOR SHUTE,

Ophthalmic Surgeon to the Washington Hospital for Foundlings and to the South Washington Free Dispensary.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to

qualify one for the practice of medicine may be acquired during the two courses of Lectures from the Chair, which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the Surgical and Medical Relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors will prepare the subject for the Lecturer.

The Demonstrator of Anatomy and his assistants give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

## Chemistry and Toxicology.

PROFESSOR DE SCHWEINITZ,

Chemist of the Biochemic Laboratory, Bureau of Animal Industry, Department of Agriculture.

This course embraces—

A short discussion of the principles of Physics in their relation to Chemistry, the principles of chemical philosophy, the laws of chemical combination and affinity.

The elements, metals and non-metals; their methods of isolation, properties, compounds, and reactions, will be studied.

Due attention will be given to Organic Chemistry, especially those compounds that are of use in medicine.

Laboratory instruction will be given in the general methods of qualitative and quantitative analysis, toxicology, urine analysis, water analysis, and special clinical analyses.

Opportunity for advanced work in Biochemistry will be afforded.

### Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a thorough, scientific, and practical manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial emphasis will be given to those truths that have a practical value.

Physiological anatomy will receive especial attention, and will be illustrated by charts, diagrams, working models, and anatomical specimens in all cases and by demonstrations upon anæsthetized living animals when necessary to a thorough understanding of the subject. Physiological anatomy will also be taught by Professor MOORE in the Laboratory, and an opportunity will be given students to do practical physiological work as far as their time will permit.

### Dermatology.

PROFESSOR YARROW.

Professor YARROW will give a course of Lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

### Pædiatrics.

PROFESSOR HARRISON,

In Charge of the Department of General Medicine, Central Dispensary and Emergency Hospital.

Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

## Gynecology.

PROFESSOR JOHNSON,

In Charge of the Department of Gynecology, Central Dispensary and Emergency Hospital.

Professor JOHNSON will illustrate his lectures upon the diseases peculiar to women by clinical demonstrations at the hospital.

## Minor Surgery.

PROFESSOR McARDLE,

One of the Assistant Physicians to the Children's Hospital.

Professor McARDLE's course in Minor Surgery will consist of lectures and practical demonstrations. Under the supervision of his assistants, the students will apply themselves the various splints, bandages, surgical dressings, etc.

## Ophthalmology.

PROFESSOR BUTLER.

In Charge of the Lutheran Eye and Ear Infirmary.

Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

## Medical Jurisprudence.

PROFESSOR RUFFIN.

Professor RUFFIN'S course will deal with the relations of physicians to matters of legal investigation, and the students will be taught how to give expert testimony and how to conduct themselves as witnesses.

## Laryngology and Otology.

PROFESSOR RICHARDSON,

Laryngologist to the Providence Hospital.

This course will comprise lectures on diseases of the nasal passages, pharynx, larynx, and also the ear.

Practical instruction will be given in the use of the laryngoscope and other instruments required in these special branches.

### Mental Diseases.

PROFESSOR PATTERSON,

One of the Assistant Physicians to the Government Hospital for the Insane, St. Elizabeth.

Professor PATTERSON will give a series of lectures upon the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

### Nervous Diseases.

PROFESSOR TOMPKINS,

In Charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital.

Professor TOMPKINS will lecture upon the more common and important of these affections.

### Surgical Pathology.

PROFESSOR VAN RENSSELAER,

One of the Surgeons to the Garfield Hospital.

Dr. VAN RENSSELAER will give a series of lectures upon the Pathological Anatomy of Surgical Diseases and Injuries and upon Surgical Bacteriology, illustrated by means of charts and photographs.

### Orthopedic Surgery.

PROFESSOR SHANDS.

This course will embrace didactic lectures on the Pathology, Etiology, Course and Termination of all Chronic Joint Diseases, and, as far as practicable, with clinical instruction of treatment of the same according to the most modern orthopedic methods.

Special attention will be given to the correction of all deformities, either acquired or congenital, by both mechanical and operative measures; also practical illustrations as to applications of all of the most modern orthopedic appliances.

Practical instruction will be given in the application and use of plaster of Paris in treatment of Potts' Disease, Scoliosis, Club Feet, etc.

## Histology.

PROFESSOR MOORE.

The study of Histology is compulsory for students through the first two years of their course. In the first year special attention will be given to the manipulation of the microscope and to that part of the technique necessary for an intelligent study of tissues. This will be followed in the latter part of the first session and throughout the second year by a systematic study of the cellular structure of the elementary tissues and organs of the body. The histological laboratory is well equipped with microscopes and accessory apparatus necessary for carrying out a thoroughly practical course of study in this subject. Examinations will be held at the close of each session.

## Pathology and Bacteriology.

PROFESSOR REED.

The course in Pathology begins with the study of inflammation, and takes up, in regular order, the pathological histology of the different tissues and organs of the body. Microscopical sections are given to be stained, mounted, and carefully studied and drawn.

Opportunities will be afforded to witness post-mortem examinations from time to time, which is considered a part of the pathological course.

In connection with the demonstration of fresh pathological material, use will be made of frozen microscopical sections of the fresh specimens.

In addition to the foregoing, examination of blood and urine is included as a part of the course in Pathology.

The Bacteriological course will consist of practical work in the bacteriological laboratory. The student is here taught the preparation of culture media, the principles of disinfection and sterilization, and the methods of cultivating, staining, and studying bacteria. Familiarity with the pathogenic bacteria is considered the most important part of this course.

## Laboratory Instruction.

The new laboratories have been furnished with the necessary apparatus and with all modern appliances for practical instruction in Chemistry, Bacteriology, Normal and Pathological Histology and Pharmacy, as above described.

During the past year the Faculty have prepared a room for a Pathological Museum and equipped it with a large number of interesting and valuable specimens. Dr. L. W. Glazebrook, the deputy coroner of the District of Columbia, has been made Curator of the Museum, and from time to time adds valuable specimens to the Museum.

## Clinical Instruction.

Attendance upon Clinical Instruction in Medicine and Surgery, during at least two years, *is required*, and when the student presents himself for examination a certificate to this effect must be furnished.

GARFIELD HOSPITAL.—Clinical Lectures will be given regularly during the session by Professor THOMPSON on Surgery, and by Professors ACKER and COOK on Medicine. A great variety of medical and surgical diseases is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, THOMPSON, and ACKER. An opportunity is here afforded of observing all the medical and surgical diseases, injuries, etc., to which children are liable. The dispensary service of the Hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors HARRISON, in charge of the department of general medicine, and TOMPKINS, in charge of nervous diseases; H. L. E. JOHNSON, in charge of the department of diseases of women, and JAMES KERR, in charge of the department of surgical diseases, will conduct courses of instruction in their respective branches.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

## Requirements for Matriculation and Graduation.

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either submit themselves to an examination or in lieu thereof present a satisfactory certificate of their attainments from some college.

Should an examination be necessary, it will comprise the following subjects:

1. English composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Students conditioned or unable to undergo the examination in Latin or in Elementary Physics may obtain instruction on these subjects during the Freshman year, and on passing a satisfactory examination before the beginning of the second year will be admitted to matriculation.

Students desiring instruction in Latin, Physics, etc., may obtain it from Dr. O. A. M. McKIMMIE, 1333 N street, N. W., to whom they are referred for particulars as to the arrangement of time, fees, etc.

II. Candidates for the degree of Doctor of Medicine must have attended four courses of lectures, the subjects arranged as follows:

FIRST YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas; four hours laboratory work per week.

Materia Medica and Pharmacy.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Practical Anatomy.—Dissection-room open during the day and until 12 o'clock at night.

Examination at the end of the year upon the above-named subjects.

SECOND YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas; four hours laboratory work.

Materia Medica and Pharmacy.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Practical Anatomy.—Dissection-room open all day and until 12 o'clock at night.

Examination at the end of this year upon the above-named subjects.

THIRD YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Two lectures per week before Christmas; three lectures per week after Christmas.

Obstetrics.—Three lectures per week before Christmas; two lectures per week after Christmas.

Minor Surgery.—One lecture per week from October 1 to December 10, bandaging, etc., in the manikin-room.

Dermatology.—One lecture per week from January 5 to March 9.

Ophthalmology.—One lecture per week from October 6 to December 8.

Bacteriology and Pathology.—Eight hours laboratory work per week.

Surgical Pathology.—One lecture per week from October 3 to December 5.

Clinics.

Examination on the above-named subjects at the end of the year.

FOURTH YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Two lectures per week before Christmas; three lectures per week after Christmas.

Obstetrics.—Three lectures per week before Christmas; two lectures per week after Christmas.

Gynecology.—One lecture per week from January 7 to March 11.

Mental Diseases.—One lecture per week from January 5 to March 9.

Medical Jurisprudence.—One lecture per week from October 1 to December 10.

Nervous Diseases.—One lecture per week from January 2 to March 6.

Pædiatrics.—One lecture per week from October 5 to December 7.

Otology and Laryngology.—One hour per week from November 2 to December 21, and from January 4 to March 29.

Orthopedic Surgery.—One lecture per week from January 2 to March 6.

Hygiene.—One lecture per week from January 6 to March 10.

Clinics.

Final examination at the close of the fourth year upon the above-named subjects.

## ORDER OF LECTURES, DAILY.—FIRST YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | | Chemistry. Lower Room. | | Chemistry. Lower Room. | | Chemistry. Lower Room. |
| 6.30 | | Materia Medica and Therapeutics. Lower Room. | Anatomy. Upper Room. | Materia Medica and Therapeutics. Lower Room. | | Materia Medica and Therapeutics. Lower Room. |
| 7.30 | Physiology. Upper Room. | Chemistry. Laboratory. | Practical Anatomy. | Chemistry. Laboratory. | Physiology. Lower Room. | Anatomy. Upper Room. |
| 8.30 | Practical Anatomy. | Chemistry. Laboratory. | | Chemistry. Laboratory. | Practical Anatomy. | Practical Pharmacy. |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | | Chemistry. Lower Room. | Practical Pharmacy. | | | Chemistry. Lower Room. |
| 6.30 | | Materia Medica. Lower Room. | Anatomy. Upper Room. | | Anatomy. Upper Room. | Materia Medica. Lower Room. |
| 7.30 | Anatomy. Upper Room. | Chemistry. Laboratory. | Physiology. Lower Room. | Practical Anatomy. | Physiology. Lower Room. | Chemistry. Laboratory. |
| 8.30 | Physiology. Lower Room. | Chemistry. Laboratory. | | Practical Anatomy. | | Chemistry. Laboratory. |

## ORDER OF LECTURES, DAILY.—SECOND YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry. Lower Room. | Practical Anatomy. | Chemistry. Lower Room. | Histology. Laboratory. | Chemistry. Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. | Anatomy. Upper Room. | Materia Medica and Therapeutics. Lower Room. | Histology. Laboratory. | Materia Medica and Therapeutics. Lower Room. |
| 7.30 | Physiology. Upper Room. | Chemistry. Laboratory. | Practical Anatomy. | Chemistry. Laboratory. | Physiology. Lower Room. | Anatomy. Upper Room. |
| 8.30 | | Chemistry. Laboratory. | | Chemistry. Laboratory. | | Practical Pharmacy. |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Histology. Laboratory. | Chemistry. Lower Room. | Practical Pharmacy. | Histology. Laboratory. | Practical Anatomy. | Chemistry. Lower Room. |
| 6.30 | Histology. Laboratory. | Materia Medica. Lower Room. | Anatomy. Upper Room. | Histology. Laboratory. | Anatomy. Upper Room. | Materia Medica. Lower Room. |
| 7.30 | Anatomy. Upper Room. | Chemistry. Laboratory. | Physiology. Lower Room. | | Physiology. Lower Room. | Chemistry. Laboratory. |
| 8.30 | Physiology. Lower Room. | Chemistry. Laboratory. | | | | Chemistry. Laboratory. |

## ORDER OF LECTURES, DAILY.—THIRD YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | Surgery. Upper Room. | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | (Oct. 6 to Dec. 8.) Ophthalmology. Upper Room. | Obstetrics. Lower Room. | | Obstetrics. Upper Room. | (Oct 3 to Dec. 5.) Surgical Pathology. Upper Room. |
| 7.30 | Bacteriology. Laboratory. | Practice. Lower Room. | Bacteriology. Laboratory. | | Bacteriology. Laboratory. | Practice. Lower Room. |
| 8.30 | Bacteriology. Laboratory. | | Bacteriology. Laboratory. | (Oct. 1 to Dec. 10.) Minor Surgery and Bandaging. Special Room. | Bacteriology. Laboratory. | |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | | | | Obstetrics. Lower Room. | |
| 7.30 | Pathology. Laboratory. | Practice. Lower Room. | Pathology. Laboratory. | Practice. Lower Room. | Pathology. Laboratory. | Practice. Lower Room. |
| 8.30 | Pathology. Laboratory. | (Jan. 5 to March 9.) Dermatology. Lower Room. | Pathology. Laboratory. | | Pathology. Laboratory. | |

## ORDER OF LECTURES, DAILY.—FOURTH YEAR, 1895-'96.

### BEFORE CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | Surgery. Upper Room. | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | | Obstetrics. Lower Room. | (Oct. 1 to Dec. 10.) Medical Jurisprudence. Upper Room. | Obstetrics. Upper Room. | |
| 7.30 | (Oct. 5 to Dec. 7.) Pædiatrics. Lower Room. | Practice. Lower Room. | | Practice. Lower Room. | | Practice. Lower Room. |
| 8.30 | (Nov. 2 to Dec. 21.) Otology and Laryngology. Lower Room. | | | | | |

### AFTER CHRISTMAS.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---|---|---|---|---|---|---|
| 5.30 | Surgery. Upper Room. | | | | Surgery. Upper Room. | |
| 6.30 | Obstetrics. Upper Room. | (Jan. 5 to March 9.) Mental Diseases. Upper Room. | (Jan. 6 to March 10.) Hygiene. Lower Room. | (Jan. 7 to March 11.) Gynecology. Upper Room. | Obstetrics. Lower Room. | (Jan. 2 to March 6.) Nervous Diseases. Upper Room. |
| 7.30 | (Jan. 4 to March 29.) Otology and Laryngology. Lower Room. | Practice. Lower Room. | | Practice. Lower Room. | | Practice. Lower Room. |
| 8.30 | | | | | | (Jan. 2 to March 6.) Orthopedic Surgery. Upper Room. |

## Clinical Instruction.

Surgical Clinics, by Professor THOMPSON, at Garfield Hospital, on Sunday, at 11 a. m., and at the Children's Hospital at 2 p. m., during the entire course.

Medical Clinics, by Professor JOHNSTON, from October to January; by Professor ACKER, at the Garfield Hospital, on Tuesday, at 4 p. m., and by Professor G. WYTHE COOK, at the Garfield Hospital.

Clinics on the special branches will be given by Professor ACKER, at the Children's Hospital, from January to April; by Professor H. L. E. JOHNSON, at the Emergency Hospital, on Gynecology; by Professor RICHARDSON, on Laryngology and Otology, at the Lutheran Eye and Ear Infirmary; by Professor BUTLER, on the Diseases of the Eye, at the Lutheran Eye and Ear Infirmary, and by Professor TOMPKINS, on the Diseases of the Nervous System, at the Emergency Hospital.

When the student presents himself for graduation he must furnish a certificate from Drs. THOMPSON, KERR, or VAN RENSSELAER that he has attended two full courses of instruction in clinical surgery, and from Drs. JOHNSTON, ACKER, or COOK that he has attended two full courses of clinical medicine.

III. Students of other institutions who have attended one course of lectures in any regular medical school will be placed upon the same footing with those who have attended one course in this College, and those who have attended two (or three) courses of lectures in any other regular college or colleges will rank with those who have attended two (or three) courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described.

IV. Candidates for graduation must have studied medicine four years. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have dissected at least two sessions, during each of which he shall be required to dissect two "parts" of a subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will

be both written and oral. The examination for the degree will be held at the end of the session in April.

The diploma is granted only at the Annual Commencement in May.

VII. Graduates of other accredited medical colleges must pass a satisfactory examination on the essential branches of medicine before receiving a diploma from this University.

VIII. Students who fail to pass the examinations in the spring will be allowed a re-examination in the following fall.

## Fees, Regulations, etc.

For the session of 1895-1896 and thereafter the fee for each year (for new matriculants) will be $106. This covers all expenses, laboratories and dissection included. Of this amount at least $25 must be paid upon entrance.

| | |
|---|---|
| Matriculation Fee, payable only once | $5 00 |
| Single Tickets | 20 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Full Course, first year | 75 00 |
| Full Course, second year | 75 00 |
| Full Course, third year | 75 00 |
| Full Course, fourth year | 75 00 |

This annual fee of seventy-five dollars does *not* include the ticket of the Demonstrator of Anatomy nor any fee for laboratory work, but *does* include all examination fees and clinical instruction.

Students who matriculated during or before the session of 1892-'93, prior to the adoption of the four-year plan, will be charged in conformity with the old regulations, as follows:

| | | |
|---|---|---|
| First Course: | Four Primary Tickets | $60 00 |
| | Practical Anatomy, by the Demonstrator | 10 00 |
| | Total | $75 00 |
| Second Course: | Four Primary Tickets | $60 00 |
| | Three Final Tickets | 45 00 |
| | Practical Anatomy, by the Demonstrator | 10 00 |
| | Examination Fee (Primary Branches) | 20 00 |
| | Total | $135 00 |
| Third Course: | Three Final Tickets | $45 00 |
| | Examination Fee (Final Branches) | 10 00 |
| | Total | $55 00 |

The expense for Laboratory tickets to *all* students for Chemistry, Histology, Bacteriology, and Pathological Histology will be five dollars for *each branch* (total, $20). A deposit will be required to defray the expense of material used and apparatus destroyed in the chemical laboratory.

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Dean or Secretary-Treasurer to suit the convenience of the student.*

Fees are to be paid to the Secretary-Treasurer.

By virtue of a liberal endowment from the late Mr. W. W. CORCORAN, this College is enabled to offer *six* free Scholarships.

*Two* of these Scholarships are open to the graduates of the several High Schools of the District of Columbia for competitive examination. These two Scholarships will be awarded to the two students whose averages are highest.

*Two* of the Scholarships are open, for competitive examination, to graduates of any reputable High School or College (preference being given to those in the District of Columbia), who shall give satisfactory written evidence of *pecuniary inability* and certificates of good moral character and industry. These two Scholarships will be awarded to the two graduates whose averages are highest.

The remaining *two* of those Scholarships are open, for competitive examination, to students who, though not graduates of any High School or College, yet give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of *pecuniary inability* and certificates of good moral character and industry. These two Scholarships will be awarded to the two students whose averages are highest.

In addition to the above-mentioned six Corcoran Scholarships, the Faculty offer two Medical Missionary Scholarships, which shall be given to those applicants, judged by the President of the University best qualified to enter upon the study of medicine for the purpose of becoming Medical Missionaries.

Applications should be addressed to the Dean and sent in not later than the first of September.

Graduates of other accredited Medical Colleges, after five years, are required to matriculate only. Prior to the expiration of five years the fee for a general ticket is $75.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from $12 to $30 per month, and rooms may be obtained for $10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at No. 1325 H street N. W., and is within half a square of three lines of street cars going to every part of the city.

Students desiring further information are requested to address

DR. D. K. SHUTE, *Dean*,
1120 *New York Avenue N. W., Washington, D. C.*

Or—

DR. E. A. DE SCHWEINITZ,
*Secretary-Treasurer*, 1325 *H Street N. W.*

## Prizes.

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination

The Faculty will award two additional prizes—one for proficiency in *Clinical Medicine*, and one for proficiency in *Clinical Surgery*.

In addition to these, Professor H. C. Yarrow gives a prize for the best examination in Dermatology; Professor H. L. E. Johnson gives one for the best examination in Clinical Gynecology, and Professor Sterling Ruffin gives one for the best examination in Medical Jurisprudence.

At the Commencement in May, 1895, the General Examination Prize was awarded to EDWARD E. RICHARDSON, of Vermont, first honorable mention being made of J. HAMILTON STONE, of the District of Columbia; second honorable mention of GEORGE T. PREWITT, of Texas, and third honorable mention of FANNIE C. BREWER, of Maryland.

The Faculty Prize in Clinical Medicine was given to Dr. JOHN HAMILTON STONE, of the District of Columbia.

The H. C. Yarrow Prize in Dermatology was awarded to WARREN DEXTER FALES, of Illinois. The H. L. E. Johnson Prize in Clinical Gynecology was awarded to HOMER L. SPAULDING, of Kansas, and the Sterling Ruffin Prize in Medical Jurisprudence to WILLIAM A. TYLER, of Kansas.

The degree of Doctor of Medicine was conferred upon Professor E. A. DE SCHWEINITZ.

## Graduates in Medicine, 1895.

| Name. | Residence. |
|---|---|
| Fannie C. Brewer, 212 Indiana Ave., N. W. | Maryland. |
| De Witt C. Chadwick, 61 I St., N. W. | Ohio. |
| Henry K. Craig, 2020 G St., N. W. | Maine. |
| George W. Currier, 2932 14th St., N. W. | Maine. |
| John Dale, 806 11th St., N. W. | Pennsylvania. |
| Henry M. Dixon, 1100 18th St., N. W. | Mississippi. |
| W. H. Dobson, 100 11th St., N. E. | Pennsylvania. |
| Warren Dexter Fales, 1222 H St., N. W. | Illinois. |
| Alfred G. Grunwell, 1515 30th St., N. W. | District of Columbia. |
| Bernard S. Hardin, 1307 Corcoran St., N. W. | Virginia. |
| Ralph A. Harding, 1625 Madison St., N. W. | District of Columbia. |
| J. R. Johnson, 920 N St., N. W. | Virginia. |
| Joseph F. James, U. S. National Museum. | Ohio. |
| W. A. Kinnan, 1936 5th St., N. W. | Michigan. |
| U. S. G. Keller, 1807 13th St., N. W. | Pennsylvania. |
| Frank A. Kirby, 2420 14th St., N. W. | Massachusetts. |
| Kate E. Lozier, 1401½ 14th St., N. W. | Connecticut. |
| L. Fleet Luckett, 1625 14th St., N. W. | Maryland. |
| G. N. McLoughlin, 813 12th St., N. W. | Tennessee. |
| Wm. L. Masterson, 815 North Capitol St. | Ohio. |
| F. P. Magennis, Brightwood, D. C. | Pennsylvania. |
| Frank A. Mazzie, 216 Arthur Place, N. W. | District of Columbia. |
| Homer S. Medford, 138 C St., N. E. | District of Columbia. |
| William S. Newell, 626 C St., N. E. | Indiana. |
| George T. Prewitt, 1119 B St., N. E. | Texas. |
| Tunis C. Quick, Falls Church, Va. | Virginia. |
| David E. Quinn, 1414 Q St., N. W. | Ohio. |
| Arthur C. Rauterberg, 510 5th St., N. W. | District of Columbia. |
| V. B. Rench, 438 7th St., N. W. | District of Columbia. |
| Edward E. Richardson, 316 4½ St., S. W. | Vermont. |
| Milo H. Sutliff, 2313 Pennsylvania Ave., N. W. | Ohio. |
| Percy G. Smith, Children's Hospital. | Maryland. |
| Homer L. Spaulding, 718 11th St., N. W. | Kansas. |
| John Hamilton Stone, Brightwood, D. C. | District of Columbia. |
| James R. Tubman, 816 12th St., N. W. | District of Columbia. |
| William A. Tyler, 322 Elm St., N. W. | Kansas. |
| William O. Wetmore, 513 3d St., N. W. | New York. |

## Medical Undergraduates.

| Name. | Residence. |
|---|---|
| May D. Baker, 1434 S St., N. W. | Kansas. |
| Frank A. Barbour, 1327 12th St., N. E. | Mississippi. |
| Joel Curry, 721 8th St., N. W. | Georgia. |
| H. A. Dunn, 488 I St., S. W. | District of Columbia. |
| Marion Dorsett, 1120 New York Ave., N. W. | Pennsylvania. |
| J. M. Fairly, 918 I St., N. W. | Mississippi. |
| J. H. Ford, 314 2d St., S. E. | District of Columbia. |
| W. Ashby Frankland, 916 8th St., N. W. | Virginia. |
| H. R. Garland, Coast and Geodetic Survey Office. | Virginia. |
| E. L. Goodall, 1230 14th St., N. W. | Vermont. |
| Oscar J. Gwynn, 1118 New Hampshire Ave., N.W. | Colorado. |
| James R. Hamilton, R. and P. Office, War Dep't. | Texas. |
| F. McG. Hartsock, 1008 K St., N. W. | District of Columbia. |
| Montgomery Hunter, U. S. Post Office Department. | Virginia. |
| A. B. Hooe, 915 I St., N. W. | Virginia. |
| P. C. Hutton, 309 1st St., S. E. | North Carolina. |
| Charles James, 109 C St., S. E. | District of Columbia. |
| John E. Jones, 1213 O St., N. W. | Ohio. |
| C. R. Johnson, 1014 11th St., N. W. | Delaware. |
| G. F. Juenemann, 310 6th St., N. W. | District of Columbia. |
| J. A. Koch, Garfield Hospital. | Illinois. |
| A. L. Lawrence, 1211 F St., N. W. | Ohio. |
| Hanson T. A. Lemon, 629 G St., S. W. | District of Columbia. |
| V. A. Lewis, 1634 15th St., N. W. | Maryland. |
| R. S. Lynch, 2449 P St., N. W. | Indiana. |
| W. M. Matthews, 1414 H St., N. W. | Louisiana. |
| W. P. Mills, 1132 10th St., N. W. | Maryland. |
| Charles McCulloch, 2650 14th St., N. W. | Virginia. |
| James S. McIlhenny, Hotel Oxford. | District of Columbia. |
| W. J. Olds, 1413 N St., N. W. | Michigan. |
| C. W. Orr, 525 10th St., S. E. | New York. |
| R. D. Pope, 630 I St., N. W. | Illinois. |
| Woodbury Pulsifer, 1417 R St., N. W. | Maine. |
| D. N. Reeve, 933 H St., N. W. | Iowa. |
| Henry M. Seltzer, 445 5th St., N. E. | Pennsylvania. |
| D. B. Street, 1102 9th St., N. W. | District of Columbia. |
| Denny de S. Verdi, 815 14th St., N. W. | District of Columbia. |
| Thomas A. Whittington, 451 M St., N. W. | Nebraska. |
| Edwin P. Wolfe, 17 Grant Place. | Iowa. |

## Students in Medicine, 1895–1896.

| Name. | Residence. |
|---|---|
| Lewis S. Atkins, 1231 New York Ave., N. W. | North Carolina. |
| J. Howard Allen, 949 New York Ave., N. W. | Tennessee. |
| J. N. Baker, 310 7th St., N. E. | Kansas. |
| O. Baker, 609 E St., N. W. | New Jersey. |
| B. F. Blye, Jr., 115 7th St., N. E. | New York. |
| Eugene I. Brown, 827 5th St., N. W. | Texas. |
| N. I. Barron, 1108 F St., N. W. | Alabama. |
| Frank A. Barbour, 1327 12th St., N. E. | Mississippi. |
| Arthur R. Butler, 216 11th St., S. W. | Oregon. |
| Richard Breaden, 222 G St., N. W. | Wisconsin. |
| G. L. Baker, 140 A St., N. E. | South Carolina. |
| A. D. Butz, 218 9th St., S. W. | Pennsylvania. |
| S. Alford Blackburn, Kensington, Md. | Kentucky. |
| George M. B. Bradshaw, R. and P. O., War Dep't. | Pennsylvania. |
| A. F. Cook, 1215 I St., N. W. | Virginia. |
| C. O. Coleman, 827 4th St., N. E. | Virginia. |
| J. Wendal Clarke, 1709 21st St., N. W. | District of Columbia. |
| Edgar C. Campbell, 1439 Howard Ave., N. W. | District of Columbia. |
| Elmon A. A. Cook, 712 4th St., S. E. | District of Columbia. |
| James C. S. Cannon, Box 88, Anacostia, D. C. | England. |
| George L. Clayton, 436½ H St., N. W. | Louisiana. |
| C. A. Clemons, 1443 Corcoran St., N. W. | New York. |
| Percy M. Cox, 1300 Pennsylvania Ave., N. W. | Maryland. |
| V. K. Chesnut, Department of Agriculture. | California. |
| T. P. Chapman, 1108 F St., N. W. | Texas. |
| J. E. Clark, Terra Cotta, D. C. | District of Columbia. |
| Joel T. Curry, 721 8th St., N. W. | Georgia. |
| Thomas Dowling, Jr., 614 E St., N. W. | District of Columbia. |
| George B. Driesbock, 512 B St., N. E. | Wisconsin. |
| Harry J. Dunn, 488 I St., S. W. | Illinois. |
| George B. Dent, 614 6th St., N. W. | North Carolina. |
| Marion Dorsett, B. S., 1120 New York Ave., N. W. | Pennsylvania. |
| G. Sanger Driver, 1342 N St., N. W. | District of Columbia. |
| J. H. Ford, B. S., A. M., 314 2d St., S. E. | District of Columbia. |
| F. F. Fadely, 2023 N St., N. W. | Virginia. |
| W. Ashby Frankland, 916 8th St., N. W. | Virginia. |
| W. N. Fisher, 1212 9th St., N. W. | Virginia. |

| Name. | Residence. |
|---|---|
| W. C. Gaynor, 715 9th St., N. W. | Kentucky. |
| Frank E. Gibson, 927 I St., N. W. | District of Columbia. |
| Wm. H. Gallinger, LL. M., The Elsmere. | New Hampshire. |
| R. B. Grubbs, Department of Agriculture. | Alabama. |
| John Paul Gunion, 927 O St., N. W. | District of Columbia. |
| Ellis S. Goodall, 1230 14th St., N. W. | Vermont. |
| Paul B. Graham, 1236 31st St., N. W. | Maryland. |
| H. H. Graham, 305 H St., N. W. | Ohio. |
| H. R. Garland, Coast and Geodetic Survey Office. | Virginia. |
| Robert C. Gotta, 813 1st St., N. W. | Pennsylvania. |
| W. W. Grier, 1223 K St., N. W. | District of Columbia. |
| P. S. Gunckell, 231 10th St., N. W. | Kansas. |
| L. Murray Gotwald, 309 11th St., S. W. | Pennsylvania. |
| R. H. Hardman, War Department. | Maryland. |
| Richard A. Hales, 928 N. Y. Ave., N. W. | North Carolina. |
| J. C. Heath, 708 11th St., N. W. | Maryland. |
| Charles R. Hughes, 18 N St., N. W. | Tennessee. |
| Harry K. Hodes, 38 I St., N. W. | New York. |
| Robert Ernest House, 1920 Sunderland Pl., N. W. | Texas. |
| Ernest R. Hunting, 433 M St., N. W. | New York. |
| W. P. Hill, V. S., Rockville, Md. | Maryland. |
| W. A. Haugaard, 1216 G St., N. W. | Denmark. |
| Almer M. Hoadley, 219 4½ St., N. W. | New York. |
| F. M. Hartsock, 1008 K St., N. W. | Maryland. |
| Paul C. Hutton, 309 1st St., S. E. | North Carolina. |
| C. Norman Howard, 928 T St., N. W. | Pennsylvania. |
| N. N. Herbert, 824 D St., S. E. | District of Columbia. |
| J. K. Halley, D. D. S., 1321 F St., N. W. | Virginia. |
| P. W. Huntington, 3045 N St., N. W. | Connecticut. |
| Avediss B. Herald, 1309 F St., N. W. | Armenia. |
| W. R. B. Holland, 925 8th St., N. W. | District of Columbia. |
| A. B. Hooe, 915 I St., N. W. | Virginia. |
| Ralph Jenkins, M. D., 1732 Mass. Ave., N. W. | New York. |
| Thomas G. Jones, 228 1st St., S. E. | District of Columbia. |
| Charles J. Johnson, 1014 11th St., N. W. | Delaware. |
| V. R. Johnson, Ph. Grad., 1460 Corcoran St., N. W. | Virginia. |
| Charles James, 109 C St., S. E. | District of Columbia. |
| George F. Juenemann, 310 6th St., N. W. | District of Columbia. |
| John E. Jones, 1213 O St., N. W. | District of Columbia. |
| Sothoron Key, 1723 G St., N. W. | Maryland. |

| Name. | Residence. |
|---|---|
| John A. Koch, Garfield Hospital. | Illinois. |
| C. L. Keyser, 2019 Massachusetts Ave., N. W. | District of Columbia. |
| George C. F. Lindenkohl, 19 4th St., S. E. | District of Columbia. |
| Hanson T. A. Lemon, 629 G St., S. W. | District of Columbia. |
| Eugene L. Le Merle, 330 Spruce St., N. W. | District of Columbia. |
| John St. J. Lockwood, cor. 1st and B Sts., S. W. | District of Columbia. |
| Wilson A. Lee, 1741 Q St., N. W. | West Virginia. |
| R. L. Lynch, 2449 P St., N. W. | Indiana. |
| A. L. Lawrence, 1211 F St., N. W. | Ohio. |
| Victor A. Lewis, 1634 15th St., N. W. | Maryland. |
| Henry A. May, 1826 9th St., N. W. | New York. |
| Jacob Michaelian, 1012 F St., N. W. | Armenia. |
| Orville J. Mason, 1203 13th St., N. W. | New York. |
| B. E. Marshall, 1305 R St., N. W. | Virginia. |
| Walter A. McNeil, 930 K St., N. W. | Tennessee. |
| Charles S. Muir, 512 3d St., N. W. | District of Columbia. |
| M. J. McIntee, Treasury Department. | Massachusetts. |
| W. W. Medley, 405 G St., N. W. | Virginia. |
| Samuel J. McMichael, 926 P St., N. W. | South Carolina. |
| William P. McKee, 809 22d St., N. W. | District of Columbia. |
| S. M. Mason, 1706 F St., N. W. | Virginia. |
| W. E. Musgrave, Washington Barracks. | Tennessee. |
| R. B. Main, 2009 Massachusetts Ave., N. W. | District of Columbia. |
| P. E. McDonnald, 913 I St., N. W. | Georgia. |
| R. Lawton Morgan, 1912 Sunderland Place. | Pennsylvania. |
| James S. McIlhenny, Hotel Oxford. | District of Columbia. |
| R. A. W. McKeldon, 1242 Maryland Ave., N. E. | District of Columbia. |
| Charles McCulloch, D. V. S., 2650 14th St., N. W. | Virginia. |
| W. W. Matthews, 1414 H St., N. W. | Louisiana. |
| William P. Mills, A. B., 1132 10th St., N. W. | Maryland. |
| Robert J. McAdory, 1520 S St., N. W. | Alabama. |
| F. H. Morhart, 228 Morgan St., N. W. | Ohio. |
| H. Norman North, St. Elizabeth Asylum, D. C. | District of Columbia. |
| John I. Nimmo, 1212 H St., N. E. | Georgia. |
| W. D. Naramore, Alexandria, Va. | Virginia. |
| W. J. Olds, 1413 N St., N. W. | Michigan. |
| Edwin W. Patterson, The Raleigh. | Ohio. |
| Almer Alonzo Protzman, 1507 28th St., N. W. | West Virginia. |
| H. F. Porter, 3035 O St., N. W. | New York. |
| Herbert T. Penny, M. D., 1520 12th St., N. W. | Montana. |

| Name. | Residence. |
|---|---|
| D. W. Prentiss, Jr., 1322 Yale St., N. W. | District of Columbia. |
| Joseph Perkins, 1214 New York Ave., N. W. | Illinois. |
| Rolla D. Pope, B. S., 603 I St., N. W. | Illinois. |
| Woodbury Pulsifer, 1417 R St., N. W. | Maine. |
| C. O. Perry, 1908 G St., N. W. | Illinois. |
| A. Pearson, B. S., Department of Agriculture. | Pennsylvania. |
| Eugene C. Rice, 603 3d St., N. W. | Massachusetts. |
| P. C. Riley, 1015 14th St., N. W. | Maryland. |
| Luther H. Reichelderfer, 1205 Q St., N. W. | Ohio. |
| C. A. Ragan, 246 8th St., N. E. | Tennessee. |
| Will. H. Reeves, 227 North Capitol St. | Tennessee. |
| A. A. Rittenour, 815 King St., Alex., Va. | Virginia. |
| Wright Rives, Box 194, Washington, D. C. | Maryland. |
| Walter E. Stoner, 1456 Corcoran St., N. W. | Maryland. |
| William E. Sullivan, 505 L St., N. W. | Massachusetts. |
| William T. Smith, 813 Vermont Ave., N. W. | Georgia. |
| Maynard J. Simmons, 22 2d St., N. W. | Maryland. |
| Charles J. Sheridan, 435 G St., N. W. | New York. |
| George A. Schwinn, Ph. Grad., Children's Hospital. | Maryland. |
| D. F. Slattery, 252 11th St., S. E. | District of Columbia. |
| Henry H. Seltzer, 445 5th St., N. E. | District of Columbia. |
| William E. Sims, 1301 F St., N. W. | South Carolina. |
| George R. Sorrel, 620 F St., S. W. | Virginia. |
| N. W. Smith, 1413 Q St., N. W. | Pennsylvania. |
| W. S. Scott, Library of Congress. | Ohio. |
| H. A. Selhausen, 510 D St., S. E. | District of Columbia. |
| J. T. Sykes, 730 11th St., N. W. | England. |
| J. J. Shirley, M. D., 3309 O St., N. W. | Wisconsin. |
| John A. Taff, 519 New Jersey Ave., N. W. | Pennsylvania. |
| J. C. Tappan, 507 B St., S. E. | District of Columbia. |
| Adelbert A. Taylor, 17 Grant Place, N. W. | Ohio. |
| John M. Tracy, 1016 I St., N. W. | New York. |
| Arthur L. Wilson, 1741 Q St., N. W. | West Virginia. |
| Robert M. Weedin, 1210 9th St., N. W. | District of Columbia. |
| William W. Whitcomb, 720 21st St., N. W. | Kentucky. |
| D. A. Welles, 2 I St., N. W. | New Hampshire. |
| Welton C. Williams, 4th and N Sts., N. W. | Virginia. |
| William K. Ward, 1756 Pennsylvania Ave., N. W. | District of Columbia. |
| George W. Wimberly, 1412 30th St., N. W. | Georgia. |
| Edwin P. Wolfe, A. B., 17 Grant Place, N. W. | Iowa. |

| Name. | Residence. |
|---|---|
| Thomas A. Whittington, 451 M St., N. W. | Nebraska. |
| Gaylord Worstell, B. S., 436½ H St., N. W. | Texas. |
| William E. Whitson, 1527 Meridian Ave., N. W. | Maryland. |
| Charles S. White, 1105 E St., S. W. | District of Columbia. |
| S. J. Wyeth, 2022 R St., N. W. | Illinois. |
| R. E. L. Wiltberger, D. D. S., 1323 G St., N. W. | District of Columbia. |
| R. F. Yarborough, 1300 Penn. Ave., N. W. | North Carolina. |

Total..... 164

# THE DENTAL SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

J. HALL LEWIS, D. D. S.,
Professor of Dental Prosthetics and Dean of the Faculty.

HENRY C. THOMPSON, D. D. S.,
Professor of Operative Dentistry and President of the Faculty.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, M. D.,
Professor of Chemistry.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

JONATHAN R. HAGAN, D. D. S.,
Professor of Oral Surgery.

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

VERANUS A. MOORE, M. D.,
Professor of Normal Histology.

JONATHAN R. HAGAN, D. D. S.,
Demonstrator in Charge of Infirmary.

WILLIAM L. CLARK, D. D. S.,
WALTER A. LOW, D. D. S.,
CHARLES R. RICE, D. D. S.,
WILLIAM H. TRAIL, D. D. S.,
R. E. L. HACKNEY, D. D. S.,
Assistant Demonstrators.

**Clinical Operators.**

ROBERT B. DONALDSON, D. D. S.
HENRY B. NOBLE, D. D. S.
J. CURTIS SMITHE, D. D. S.
LOUIS C. F. HUGO, D. D. S.
WALTER S. HARBAN, D. D. S.
WILLIAMS DONNALLY, D. D. S.

---

J. HALL LEWIS, D. D. S., DEAN,
1023 Vermont Avenue N. W. and 1325 H Street N. W., Washington, D. C.

EMIL A. DE SCHWEINITZ, M. D.,
Secretary-Treasurer, 1325 H Street N. W.

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## DENTAL DEPARTMENT.

### Annual Announcement of the Session of 1896-'97.

The Regular Course of Lectures begins on Thursday, October 1, 1896, and continues seven months.

The Introductory Lecture of the Course will be delivered by Dr. J. Hall Lewis, on the 1st of October, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The Faculty of the Dental Department of this University announce that in order to become eligible for graduation the student must attend three full courses of seven months each, held in different years, with such exceptions as are hereinafter stated.

The subjects of the several courses are arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry and Materia Medica,

together with Practical Anatomy, Histology, Bacteriology, and such Infirmary work as is suitable for first-year students.

SECOND YEAR.—The subjects of the first year are continued, and to these are added Operative Dentistry and Prosthetic Dentistry, with more advanced Infirmary work.

THIRD YEAR.—This year is devoted *exclusively* to Operative and Prosthetic Dentistry. An examination is held at the end of each year on all subjects taught during that year.

As, however, no amount of scientific attainment can compensate for lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of clinical experience.

A large, comfortable, and well-lighted Dental Laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe-keeping of instruments belonging to the students.

The extracting room is separate from the others, and is fitted up for the proper administration of the various anæsthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of his many years of experience in Dental Practice.

The Infirmary is open every week day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of clinical material is readily available. In fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of *twenty-seven months' actual practice* in the Infirmary, during which time he may become proficient in

all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

During the past term the Infirmary has been altered and refitted and the number of chairs more than doubled. It is very complete in all its appointments. An experimental laboratory course in Metallurgy, Bridge Work, etc., has been established under the careful supervision of Dr. RICE.

## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Prosthetic Dentistry and Metallurgy.

PROFESSOR LEWIS.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered, and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught, and Bridge Work, the construction of appliances for correcting Oral Irregularities, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor LEWIS will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual every-day practice of Prosthetic Dentistry.

### Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR THOMPSON.

This course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

## Chemistry.

PROFESSOR DE SCHWEINITZ.

The instruction in this Department embraces—

A short discussion of the principles of Physics in their relation to Chemistry, the principles of Chemical Philosophy, and the laws of Chemical Combination.

A study of the elements, metallic and non-metallic; the preparation, properties, and reaction of their different compounds and their application in Dentistry.

Organic Chemistry will be studied, special attention being paid to those organic compounds that are of practical use.

Laboratory instruction will be given in the determination of acids and bases, analyses of alloys, etc.

## Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail.

Especial pains will be taken to emphasize those truths that have a known practical value.

## Materia Medica and Therapeutics.

PROFESSOR PRENTISS.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The Lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmaceutical Laboratory is established in connection with this Chair, in which the students are taught the methods of making the different preparations, such as infusions, decoctions, tinctures, syrups, and the like.

They are also taught the compounding of prescriptions, the proper excipients for pills, incompatibles (especially such as produce dangerous compounds), and are expected to actually compound working formulæ.

### Anatomy.

PROFESSOR SHUTE.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors to the Chair of Anatomy will prepare the subject for the Lecturer.

The Demonstrator of Anatomy and his Assistants give their personal attention to the students in the dissecting-room.

### Practical Anatomy.

The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied free of charge to the student. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present *at stated hours* to give his personal attention to the students and properly instruct his classes in their dissections.

### Oral Surgery.

PROFESSOR HAGAN.

A full course of Lectures upon the above subject will be given by Professor HAGAN, and arrangements have been made for Clinical Demonstrations in the Infirmary, in order to more thoroughly teach this interesting branch of General Dentistry.

## Histology.

The Histological Course embraces a thorough study of the general use of the microscope and a special examination of the origin and formation of the teeth, the minute parts of these organs, and the surrounding tissues.

## Bacteriology.

This course will embrace a comprehensive study of the bacteria of the mouth, which have relation to the diseases of that region.

## Clinical Operations.

One evening in each week a member of the Corps of Clinical Operators will lecture upon some subject of general interest in Dentistry, and upon the following Saturday, whenever admissible, will give in the Infirmary a practical demonstration of the subject mentioned.

Special attention is called to the fact that the members of the Clinical Corps take an *active* part in the College instruction, each member giving several lectures on special subjects during the Winter Course, besides holding clinics at the Infirmary.

## Requirements for Matriculation and Graduation.

*Matriculants* will be required to show, either by examination or by the exhibit of a diploma or certificate from some reputable institution of learning, that they have received a good English education.

Dr. O. A. M. McKIMMIE, of the Columbian University, will conduct the entrance examination, when such is required, at 1333 N street N. W.

*Candidates for Graduation* must have attended three full Courses of Lectures, each of SEVEN months' duration, and three courses of Clinical instruction in this institution, during the regular winter term and in separate years, with the exceptions noted below.

The following is considered as an equivalent to one course in this College:

A diploma from a recognized medical school, undergraduate tickets of the same, or satisfactory evidence of having passed first-year examination in some other reputable dental school.

The following is considered as the equivalent of two courses in this College:

A diploma from a reputable dental college or evidence of having passed the second-year examination in the same.

Before becoming eligible for graduation, all medical graduates and students must take two full courses upon Operative and Prosthetic Dentistry, and conform to the usual Infirmary requirements.

Graduates from schools of pharmacy may enter the Junior Class after passing a satisfactory examination in the first-year studies.

Students are examined at the end of the regular course upon all subjects taught them during that course.

Should the student fail in his examination in the spring, he may be re-examined in the fall.

Students can go up for examination only in the spring and fall and upon the dates regularly selected for that purpose.

All fees must be paid and Infirmary requirements complied with before the student can present himself for examination.

Students must enter before or during the month of October for the regular Winter Course. They may register at any time during the nine months' Infirmary Course, and thus begin Infirmary practice at once upon payment of $25, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary*, and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall afterward be deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

## Faculty Prize.

A prize will be given by the Faculty to the graduate passing the best examination in *all* branches and having the best Infirmary record. At the last commencement the prize was awarded to Walter A. Low, of Virginia.

## Fees, etc.

Annual tuition fee..... $100 00

The above includes all the Tuition expenses. There are no *extras* whatever. The Dissection Material, Chemicals, Instruction in the Histological, Pharmaceutic, and Chemical Laboratories and Dental Infirmary are all furnished free of charge to the students.

Each student must furnish his own Books and Dental Instruments.

The student is required to make a payment upon registering, and twenty-five dollars must be paid before he can avail himself of Laboratory and Infirmary instruction.

All fees should be paid to the Secretary-Treasurer, Dr. DE SCHWEINITZ, at 1325 H street.

Candidates for graduation in the Dental School who desire to obtain a medical degree thereafter may be admitted to the medical examination on the primary branches at the termination of their second Dental Course, provided they give written notice to the Dean of their intention so to do one month before the spring examinations, and provided also that they have complied with the requirements of the Medical School as regards Dissection, the study of Histology, etc.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union.

Students requiring further information are requested to communicate with the Dean of the Faculty.

J. HALL LEWIS, DEAN,
1023 *Vermont Avenue N. W., Washington, D. C.*

The Dean can be seen personally at 1023 Vermont avenue, on any week day, from 3.30 to 4.30 p. m., and also at the College Building, 1325 H street N. W., on Monday, Wednesday, and Friday of each week from October 1 to May 1, between the hours of 6.30 and 8 o'clock p. m.

## Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the dental student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office—all of which contain rare and costly works in every department of science and literature.

The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these, for study or reference, on any week day from 9 to 3 o'clock.

The Army Medical Museum, situated on B street, corner Seventh street, S. W., is also open for daily inspection, with its unrivaled collection of pathological specimens illustrating the result of disease in every form. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe the effect of civilization and race admixture upon the dental organs.

Apart from these considerations, students from a distance have the opportunity of spending the winter profitably at the seat of the National Government during the session of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Musuem, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and, of special interest to the medical and dental student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the Grounds of the Agricultural Department, where the student of Botany may find a rare collection of medical plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of every conceivable form of dental instruments may be daily inspected, thus affording to the student an invaluable opportunity for studying the mechanical contrivances used in dental practice that is not to be obtained in any other city.

## University Lectures.

Students of the Dental School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than Law Lectures, given in the University Hall, by applying to the Dean.

## Students of Dentistry.

| | |
|---|---|
| William F. Ankeney, 1100 13th St., N. W., | Maryland. |
| Samuel E. Aler, 611 M St., N. W., | West Virginia. |
| Clarence M. Agnew, 828 12th St., N. W., | Pennsylvania. |
| George W. Boynton, 913 1st St., N. W., | New York. |
| Edwin H. Boyer, 1507 28th St., N. W., | Maryland. |
| Lorenzo J. Broughton, 928 8th St., N. W., | North Carolina. |
| Arthur Bennett, 721 8th St., N. W., | Georgia. |
| Paris E. Brengle, 450 P St., N. W., | Maryland. |
| Vivian P. Berry, 32 Grant Place, N. W., | Virginia. |
| Damon A. Binkert, 1016 I St., N. W., | Illinois. |
| Richard V. Barry, 124 C St., S. E., | District of Columbia. |
| Fenton Bradford, 1209 10th St., N. W., | Virginia. |
| Charles J. Berner, 1211 I St., N. W., | District of Columbia. |
| Edward F. Concklin, 1118 New Hampshire Ave., N. W., | Rhode Island. |
| William Creamer, 814 G St., S. E., | Maryland, |
| Emmett M. Carter, 937 Virginia Ave., S. W., | District of Columbia. |
| Eppa H. Coumbe, 1312 9th St., N. W., | Virginia. |
| Thomas B. Cochran, 111 Alfred St., Alexandria, | Virginia. |
| James C. Dunne, 10 Grant Place, N. W., | New York. |
| James D. Eggleston, M. D., 1403 Park Place, | New Jersey. |
| Joseph L. Egan, 1244 10th St., N. W., | Connecticut. |
| William C. Fisher, 3250 O St., N. W., | District of Columbia. |
| Thomas W. Fred, 721 8th St., N. W., | Virginia. |
| Jacob A. Gorman, 516 B St., N. E., | North Carolina. |
| Hopkins Gibson, 918 9th St., N. W., | West Virginia. |
| Oliver P. Gregory, 1216 Maryland Ave., N. E., | District of Columbia. |
| George E. Hurley, 923 H St., N. W., | Massachusetts. |
| William B. Hamaker, | Pennsylvania. |
| F. F. Hicks, 609 G St., S. W., | Maryland. |
| Wilmer S. Hall, 1735 G St., N. W., | Alabama. |
| James G. Haskell, 738 3d St., N. W., | Kentucky. |
| Charles B. Keefer, 316 2d St., S. E., | District of Columbia. |
| Hubert L. King, 1321 F St., N. W. | District of Columbia. |
| Henry W. Johnson, 2011 S St., N. W., | District of Columbia. |
| Llewellyn Jordan, M. D., 2026 H St., N. W., | Mississippi. |
| Harry A. Jelly, 20 Grant Place, N. W., | Maryland. |
| Roy E. Leatherman, 1415 2d St., N. W., | District of Columbia. |

| | |
|---|---|
| Samuel C. Luckett, House of Representatives, | Texas. |
| John A. Moore, | Indiana. |
| Harry B. Moore, 1402 W St., N. W., | District of Columbia. |
| John P. Moore, 1427 S St., N. W., | Illinois. |
| William E. Naff, 20 Grant Place, N. W., | Tennessee. |
| John P. Price, 1215 I St., N. W., | North Carolina. |
| J. F. Pearson, 1008 I St., N. W., | District of Columbia. |
| William A. Rawson, 728 9th St., N. W., | Michigan. |
| Frank B. Seigers, | Maryland. |
| Ernest E. Smith, 1508 W St., N. W., | Virginia. |
| Elden C. Shade, 1232 14th St., N. W., | District of Columbia. |
| J. Reverdy Stewart, | Virginia. |
| Pearce Thompson, Pension Office, | Kentucky. |
| Wines E. Thornton, Treasury Department, | Vermont. |
| Orville Van Deusen, 1212 9th St., N. W., | Virginia. |
| Frank H. Waite, Ph. D., 2d and E Sts., N. W., | Maryland. |
| Thomas R. Wheeler, 1013 L St., N. W., | England. |
| Howard A. Wiltberger, 237 N. J. Ave., N. W., | Pennsylvania. |
| James L. Whiteside, 1917 I St., N. W., | Maryland. |
| R. E. L. Wiltberger, 1323 G St., N. W., | District of Columbia. |
| J. Edmond Whitson, 1527 Meridian Ave., N.W., | Maryland. |
| R. Washington, M. D., 828 12th St., N. W., | District of Columbia. |
| H. E. Waggaman, 1627 19th St., N. W., | District of Columbia. |
| Harry M. Weber, 727 7th St., S. E., | District of Columbia. |
| Elmer F. Yount, 609 G St., S. W., | District of Columbia. |
| James R. Yates, 1300 Pa. Ave., N. W., | Virginia. |

Students in dentistry..... 63

# UNIVERSITY LECTURES.

## University Committee on Lectures.

| | |
|---|---|
| Professor J. H. GORE, *Chairman.* | Professor J. MACB. STERRETT. |
| Professor F. H. BIGELOW. | Professor WILLIAM P. CARR. |
| Professor L. D. LODGE. | Professor H. C. THOMPSON. |
| Professor J. M. HARLAN. | Mr. CHAPIN BROWN. |

*The Treasurer of the University.*

The lectures given in University Hall, other than those given to the students in law, are open to all students in the University and to the public. During the session of 1895-'96 the following lectures have been delivered:

PEOPLES AND INSTITUTIONS.

The Honorable Gardiner G. Hubbard.—Japan (Illustrated).

Professor J. H. Gore.—Holland's War with the Sea (Illustrated).

Professor Edward Farquhar.—The Unification of Italy.

Professor Hermann Schoenfeld.—Poland at the Time of its Dismemberment.

DEVELOPMENT IN LIFE, SOCIETY, AND ART.

Professor D. K. Shute.—1, Organic Cells: the Visible Units of Life; 2, Heredity with Variations; 3, Organic Evolution.

Professor Lester F. Ward.—1, Society in its Genesis; 2, The Dynamics of Society.

Professor Lee Davis Lodge.—Civilization: Organic History.

Professor William Ordway Partridge.—The Upgrowth of Art.

President B. L. Whitman.—Civilization Mirrored in Literature.

PRACTICAL LESSONS OF HISTORY.

Doctor W. T. Harris.—1, Savage Tribes, China, India, and Buddhism; 2, Persia, Egypt, Syria, and Judea; 3, Greece: 4, Rome; 5, The Crusades and the Struggle of Christianity against Pantheism; 6, The Age of Revolution and of Local Self-Government.

ART UNDER THE AUSPICES OF THE COLUMBIAN COLLEGE.

Professor William Ordway Partridge.—1, Life and Art; 2, History of Sculpture; 3, Greek and Roman Art; 4, Spiritual Element in Art; 5, National Art; 6, Art and Religion; 7, Memorial Art.

## DEGREES CONFERRED IN 1895.

HONORARY.

### Doctors of Laws.

| Name. | Residence. |
|---|---|
| Oliver Wolcott Gibbs,<br>President National Academy of Science.<br>A. M., Columbia College, N. Y., 1841.<br>M. D., College of Physicians and Surgeons, N. Y., 1845.<br>LL. D., Columbia College, N. Y., 1873. | Rhode Island. |
| Samuel Harrison Greene,<br>A. B., 1873; A. M., 1875; D. D., 1892, Colgate University.<br>D. D., 1882, Norwich University.<br>D. D., 1892, Rochester University. | District of Columbia. |

### Doctors of Divinity.

| | |
|---|---|
| Alfred Bagby,<br>A. B., Columbian College, 1847. | Virginia. |
| Joseph Johnson Muir, | District of Columbia. |

## DEGREES CONFERRED IN COURSE.

### Doctor of Philosophy.

| | |
|---|---|
| George Wesley Hamner,<br>A. B., 1882; A. M., 1885, Hiawassee College.<br>LL. B., University of Alabama, 1885.<br>LL. M., Georgetown University, 1886. | Alabama. |

### Masters of Science.

| | |
|---|---|
| George Estes Barton,<br>B. S., Worcester Polytechnic Institute, 1891. | Massachusetts. |
| Fredrich Ludwig Johannes Boettcher,<br>B. S., Columbian University, 1894. | Virginia. |
| William Asbury Case,<br>B. Sc., St. John's College, 1894. | Maryland. |
| George Vose Chandler,<br>B. S., Columbian University, 1893. | Pennsylvania. |
| Louise Connolly,<br>B. S., Columbian University, 1888. | District of Columbia. |
| Elmer Selah Farwell,<br>C. E., Rensselaer Polytechnic Institute, 1874. | Illinois. |
| Revere Randolph Gurley,<br>M. D., Columbian University, 1884. | Virginia. |

| Name. | Residence. |
|---|---|
| Horace Mann,<br>B. S., Columbian University, 1893. | Iowa. |
| George Baden Pfeiffer,<br>B. Sc., Virginia Agricultural and Mechanical College, 1886. | Maryland. |
| Cabell Whitehead,<br>B. M., Lehigh University, 1885. | Idaho. |

**Masters of Arts.**

| | |
|---|---|
| Jonas Emil Blomén,<br>Ph. D., University of Upsala, 1884. | New York. |
| Joseph Herbert Ford,<br>B. S., Columbian University, 1893. | District of Columbia. |
| Edmund Payne Halley, Jr.,<br>A. B., Kentucky University, 1891. | Kentucky. |
| Mary McPherson,<br>A. B., Wellesley College, 1893. | District of Columbia. |
| Edwin Barnes Niver,<br>A. B., Brown University, 1893.<br>B. D., Episcopal Theological School, Cambridge, 1892. | Maryland. |
| Marathon Montrose Ramsey,<br>B. S., Columbian University, 1894. | West Virginia. |
| John Merriam Reynolds,<br>B. E., 1867; M. E., 1869, Pennsylvania State Normal School. | Pennsylvania. |

**Doctors of Medicine.**

| | |
|---|---|
| Fanny C. Brewer, | Maryland. |
| De Witt C. Chadwick, | Ohio. |
| Henry K. Craig, | Maine. |
| George W. Currier, | Maine. |
| John Dale, | Pennsylvania. |
| Henry M. Dixon, | Mississippi. |
| W. H. Dobson, | Pennsylvania. |
| Warren Dexter Fales, | Illinois. |
| Alfred G. Grunwell, | District of Columbia. |
| Bernard S. Hardin, | Virginia. |
| Ralph A. Harding, | District of Columbia. |
| J. R. Johnson, | Virginia. |
| Joseph F. James, | Ohio. |

| Name. | Residence. |
|---|---|
| W. A. Kinnan, | Michigan. |
| U. S. G. Keller, | Pennsylvania. |
| Frank A. Kirby, | Massachusetts, |
| Kate E. Lozier, | Connecticut. |
| L. Fleet Luckett, | Maryland. |
| G. N. McLoughlin, | Tennessee. |
| Wm. L. Masterson, | Ohio. |
| F. P. Magennis, | Pennsylvania. |
| Frank A. Mazzie, | District of Columbia. |
| Homer S. Medford, | District of Columbia. |
| William S. Newell, | Indiana. |
| George T. Prewitt, | Texas. |
| Tunis C. Quick, | Virginia. |
| David E. Quinn, | Ohio. |
| Arthur C. Rauterberg, | District of Columbia. |
| V. B. Rench, | District of Columbia. |
| Edward E. Richardson, | Vermont. |
| Milo H. Sutliff, | Ohio. |
| Percy G. Smith, | Maryland. |
| Homer L. Spaulding, | Kansas. |
| John Hamilton Stone, | District of Columbia. |
| James R. Tubman, | District of Columbia. |
| William A. Tyler, | Kansas. |
| William O. Wetmore, | New York. |

**Doctors of Dental Surgery.**

| | |
|---|---|
| Ferdinando Aguilera, | U. S. of Colombia. |
| Joseph Cohen, | Texas. |
| James White Davis, | Maine. |
| William Sherman Gustin, | Ohio. |
| William Hislop, | Ontario. |
| Robert E. L. Hackney, | California. |
| Joseph Everett Keene, | District of Columbia. |
| Henry Knowles, | Georgia. |
| Eugene Lyman Le Merle, | District of Columbia. |
| Charles Wesley Orr, | New York. |
| William K. Petty, | Virginia. |
| Harry Parson, | New York. |
| William Henry Trail, | Maryland. |
| Ernest Varela, | California. |
| Israel G. Warfield, | Maryland. |

## Masters of Law.

| Name. | Residence. |
|---|---|
| Frederick Achenbach,<br>LL. B., Columbian University, 1894. | Missouri. |
| Edgar Allan, Jr.,<br>LL. B., Columbian University, 1894. | Virginia. |
| Edwin Sanford Bethel,<br>LL. B., Columbian University, 1894. | Illinois. |
| W. R. Blackford,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Samuel Hazen Bond,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Joseph Aloysius Burkart,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Frederick Dennett,<br>LL. B., Columbian University, 1894. | North Dakota. |
| Frederic S. Doyle,<br>LL. B., Columbian University, 1894. | Pennsylvania. |
| J. Q. Eaton,<br>A. B., Dartmouth College, 1893.<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Selden Marvin Ely,<br>LL. B., Columbian University, 1894. | Virginia. |
| Alf. M. Fuller,<br>LL. B., Columbian University, 1894. | West Virginia. |
| Orlando W. Goodwin,<br>LL. B., Columbian University, 1895. | Wisconsin. |
| James McIlvaine Gray,<br>LL. B., Columbian University, 1894. | Nebraska. |
| A. H. Hiller,<br>Ph. B., Hillsdale College, Michigan, 1889.<br>Ph. M., Hillsdale College, Michigan, 1893.<br>LL. B., Columbian University, 1894. | Michigan. |
| Frank H. Hitchcock,<br>A. B., Harvard, 1891.<br>LL. B., Columbian University, 1894. | Massachusetts. |
| Guy Hamilton Johnson,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Frank Kyselka,<br>LL. B., Columbian University, 1894. | Michigan. |

| Name. | Residence. |
|---|---|
| John Wesley Langley,<br>LL. B., Georgetown University.<br>LL. M., National University. | Kentucky. |
| Harris Lindsley,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| William C. Mayo,<br>LL. B., Columbian University, 1894. | Virginia. |
| E. Elmer Mitchell,<br>LL. B., National University, 1893.<br>LL. M., National University, 1894. | Iowa. |
| W. B. Mixon,<br>LL. B., Columbian University, 1895. | Mississippi. |
| Gales P. Moore,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| E. H. Parry,<br>LL. B., Columbian University, 1894. | District of Columbia. |
| Seth V. Peck,<br>LL. B., Columbian University, 1894. | Iowa. |
| U. G. Perry,<br>LL. B., Columbian University, 1894. | Pennsylvania. |
| William A. Pless,<br>LL. B., Columbian University, 1893. | Tennessee. |
| Will Pickett Robinson,<br>LL. B., Columbian University, 1895. | West Virginia. |
| Albert Morris Sames,<br>LL. B., University of Wisconsin. | Illinois, |
| Harold N. Saxton,<br>LL. B., Columbian University, 1894. | New York. |
| H. C. Sheridan,<br>LL. B., Columbian University, 1894. | Louisiana. |
| Albert D. Spangler,<br>LL. B., Columbian University, 1894. | Pennsylvania. |
| Luther F. Speer,<br>LL. B., Columbian University, 1894. | Pennsylvania. |
| Harry Clay Surguy,<br>LL. B., Columbian University, 1894. | Ohio. |
| Seth Elliott Tracy,<br>LL. B., Columbian University, 1894. | Texas. |
| Harry John Van Der Beek,<br>LL. B., Columbian University, 1894. | New York. |

| Name. | Residence. |
|---|---|
| Walter Winter Warwick, | Ohio. |
| LL. B., Cincinnati Law College, 1890. | |
| John Chalmers Wilson, | Maryland. |
| LL. B., Columbian University, 1894. | |

**Bachelors of Law.**

| | |
|---|---|
| Robert Felder Able, | South Carolina. |
| William J. Acker, | District of Columbia. |
| Brainard Avery, | Vermont. |
| Morris Bien, | California. |
| B. S., University of California, 1879. | |
| Cornelius Canfield Billings, | Vermont. |
| Andrew Young Bradley, | District of Columbia. |
| Charles A. Brown, | Ohio. |
| Daniel J. Carr, | Connecticut. |
| John Barber Clark, Jr., | District of Columbia. |
| Alan Ogilvie Clephane, | District of Columbia. |
| John MacLean Coit, | South Carolina. |
| B. S., University of South Carolina. | |
| Walter T. Colquitt, | Georgia. |
| Arthur F. Cosby, | District of Columbia. |
| A. B., Harvard, 1894. | |
| Jesse Padon Crawford, | Kentucky. |
| J. A. E. Criswell, | New York. |
| Alfred Newton Dalrymple, | District of Columbia. |
| William R. Davis, | New York. |
| John E. Dawson, | Massachusetts. |
| Hampton Y. Denman, Jr., | District of Columbia. |
| William B. Depue, | Michigan. |
| Harry Carroll Evans, | Iowa. |
| John R. Fellows, Jr., | New York. |
| George C. Fraser, | District of Columbia. |
| Stephen W. Gambrill, | Maryland. |
| Don Eujenio Gana, | Chile. |
| Ph. B., University of Chile, 1893. | |
| Daniel Edward Garges, | District of Columbia. |
| H. Prescott Gatley, | District of Columbia. |
| Frank Ferdinand Gentsch, | Ohio. |
| John C. Goodfellow, | District of Columbia. |
| Orlando W. Goodwin, | Wisconsin. |

| Name. | Residence. |
|---|---|
| Harvey B. Gram, | Ohio. |
| George C. Hazelton, Jr., | District of Columbia. |
| John H. Hazelton, | District of Columbia. |
| A. B., Johns Hopkins University, 1893. | |
| Julius V. Hoeffler, | Ohio. |
| Arthur Merrill Hood, | Indiana. |
| B. S., Rose Polytechnic Institute, 1893. | |
| Herman R. Howenstein, | District of Columbia. |
| Earle A. Humphrey, | North Carolina. |
| A. Roland Johnson, | District of Columbia. |
| Eugene A. Jones, | District of Columbia. |
| Lee Mason Jordan, | Georgia. |
| Carter Brewster Keene, | Maine. |
| Harry G. Kimball, | District of Columbia. |
| B. S., Amherst College, 1893. | |
| Arthur Frank Kinnan, | Texas. |
| A. B., Michigan State College. | |
| Rufus Herman Lane, | Ohio. |
| Graduate U. S. Naval Academy, 1891. | |
| A. W. McGregor, | Texas. |
| Christopher K. Macey, | New York. |
| E. B. Markham, | District of Columbia. |
| C. Carroll Martin, | District of Columbia. |
| Charles A. L. Massie, | Georgia. |
| A. M., University of Tennessee. | |
| Edgar H. May, | District of Columbia. |
| George A. H. Mills, | New York. |
| William Barrett Mixon, | Mississippi. |
| George M. Moore, | Missouri. |
| Joel Nelson Morris, | District of Columbia. |
| Edwin Alonza Niess, | Pennsylvania. |
| Francis Nye, | District of Columbia. |
| A. J. Pearson, Jr., | Ohio. |
| Grahame Hume Powell, | New York. |
| Jesse Weems Rawlings, | District of Columbia. |
| Will Pickett Robinson, | West Virginia. |
| Albert Thorpe Ryan, | Idaho. |
| Adolphe Monell Sayre, | New York. |
| Emil Charles Schneider, | Illinois. |
| John C. Scofield, | Georgia. |
| A. B., 1880; A. M., 1884, Middlebury College. | |

| Name. | Residence. |
|---|---|
| Charles F. Sensner, | Virginia. |
| Elmer David Sherburne, | New Hampshire. |
| A. B., Dartmouth College, 1890. | |
| John Bottrell Sleman, Jr., | District of Columbia. |
| Addison T. Smith, | Ohio. |
| F. M. Smith, | West Virginia. |
| Robert A. Stickney, | Florida. |
| Frederick George Stutz, | District of Columbia. |
| William Leonard Symons, | Ohio. |
| Mårven Thompson, | District of Columbia. |
| Harry Stanley Tullis, | Montana. |
| Richard K. Tyler, | District of Columbia. |
| B. S., Dartmouth College, 1890. | |
| Guy Underwood, | Ohio. |
| John G. Urquhart, | Virginia. |
| Harry Weston Van Dyke, | New York. |
| Horace Greeley Van Everen, | New York. |
| M. E., Cornell University, 1891. | |
| George Alfred Warren, | Illinois. |
| William Warren Werntz, | Massachusetts. |
| Horace Hampton Westcott, | Pennsylvania. |
| Edgar Whitfield Williams, | New York. |
| David Edgar Wilson, | District of Columbia. |
| A. B., Western Maryland College, 1893. | |
| Harvey Townsend Winfield, | District of Columbia. |

**Bachelor of Arts.**

| | |
|---|---|
| George Roscoe Davis, | Maine. |

**Bachelors of Science.**

| | |
|---|---|
| Clara Alma Crew, | Ohio. |
| Agnes M. Graham, | Pennsylvania. |
| Addie Estelle Maguire, | District of Columbia. |
| Cecil Le Roy Parker, | New York. |
| Daniel Webster Prentiss, Jr., | District of Columbia. |
| Spencer Baird Prentiss, | District of Columbia. |
| Henry Ward Turner, | California. |

**Civil Engineer.**

| | |
|---|---|
| Perly Egbert Stevens, | District of Columbia. |

Total..... 206

## Recapitulation.

| | |
|---|---|
| Students in the College | 98 |
| Students of Medicine | 164 |
| Students of Dentistry | 63 |
| Students of Law | 372 |
| Students in the Scientific School | 217 |
| Students in the Graduate School | 40 |
| Students in the Summer School | 27 |
| Students in the Academy | 55 |
| Total | 1,036 |

## Geographical Distribution of University Students.

| | | | | | |
|---|---|---|---|---|---|
| Alabama | 4 | Massachusetts | 25 | Tennessee | 20 |
| Arkansas | 5 | Michigan | 7 | Texas | 18 |
| California | 8 | Minnesota | 8 | Vermont | 6 |
| Colorado | 1 | Mississippi | 10 | Virginia | 86 |
| Connecticut | 8 | Missouri | 16 | Washington | 5 |
| Delaware | 4 | Montana | 2 | West Virginia | 18 |
| Dist. of Columbia | 344 | Nebraska | 2 | Wisconsin | 17 |
| Florida | 3 | Nevada | 3 | | |
| Georgia | 16 | New Hampshire | 9 | | |
| Idaho | 3 | New Jersey | 10 | Armenia | 2 |
| Illinois | 31 | New York | 68 | Chile | 2 |
| Indiana | 12 | North Carolina | 20 | Denmark | 1 |
| Iowa | 16 | Ohio | 42 | England | 3 |
| Kansas | 11 | Oregon | 3 | Germany | 2 |
| Kentucky | 16 | Pennsylvania | 50 | Japan | 1 |
| Louisiana | 7 | Rhode Island | 4 | | |
| Maine | 8 | South Carolina | 11 | Total | 1,036 |
| Maryland | 67 | South Dakota | 1 | | |

# THE COLUMBIAN UNIVERSITY.

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## THE

# COLUMBIAN ACADEMY,

WASHINGTON, D. C.,

1895-'96.

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FOUNDED 1821.

# THE COLUMBIAN UNIVERSITY.

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## THE

# COLUMBIAN ACADEMY,

WASHINGTON, D. C.,

1895-'96.

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FROM THE UNIVERSITY PRESS.

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JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON.
1896.

# THE COLUMBIAN ACADEMY.

THE REV. BENAIAH L. WHITMAN, D. D., PRESIDENT.

**Instructors.**

WILLIAM ALLEN WILBUR, A. M., DEAN,
Latin and English Literature.

HOWARD L. HODGKINS, PH. D.,
Physics.

H. GRANT HODGKINS, A. B.,
Mathematics.

HENRY ROGERS PYNE, A. M.,
Greek and Latin.

GEORGE NEELY HENNING, A. B.,
French, German, and History.

PAUL A. STEELE,
Commercial Law, Book-keeping, and Penmanship.

CHARLES TILDEN SEMPERS, A. M.,
English.

———— ————,*
Natural Science.

* To be appointed.

## SCHEDULE OF STUDIES.

| | Preparatory Year. | First Year. | Second Year. | Third Year. | Fourth Year. |
|---|---|---|---|---|---|
| English. | Grammar (Maxwell's), Compositions, Supplementary Reading. 4.* | Grammar (Maxwell's), Supplementary Reading, and Literature Studies. 3. | American Literature Studies, Supplementary Reading. 2. | Rhetoric, Supplementary Reading. 3. | English Literature Studies. 3. College Requirements in Literature. 2. |
| Mathematics. | Arithmetic (Hobbs's). 5. | Arithmetic (2 Terms), Algebra (1 Term). 5. | Algebra (Wells's). 5. | Geometry (Wells's). 4. | Mathematics Reviewed. 4. |
| Latin. | Latin Lessons (2d and 3d Terms). 2. | Latin Lessons (2 Terms), Nepos (1 Term). 5. | Cæsar, Grammar, and Composition throughout Course. 5. | Vergil. 5. | Cicero. 5. |
| Greek. | | | Greek Lessons (White). 5. | Xenophon, Grammar, and Composition throughout Course. 5. | Homer and Greek Historians. 4. |
| French and German. | | | | French or German. 3. | French or German. 3. |
| History. | American History (Montgomery). 4. | Greek History (Pennell's), Readings in English History. 3. | Roman History (Allen's), Readings in English History. 3. | Mediæval History, Supplementary Reading (Epoch Series). 2. | Greek and Roman History (Intensive Study). 2. |
| Natural Science. | Geography. 3. | Physical Geography. 3. | | Chemistry. 4. | Physics. 4. |
| Various Studies. | Spelling, Reading, Penmanship throughout Course. | | Civil Government and American History Studies. 2. | Book-keeping and Commercial Arithmetic (2 Terms), Commercial Law and Business Forms (1 Term). 3. | Psychology, Practical Ethics. 3. |

*Number of recitation periods a week.

## THE ACADEMY.

The Academy is a corporate part of the Columbian University. It offers three courses of study: The first of these is especially designed to meet the requirements of the colleges; the second to meet the requirements of the scientific schools; the third to give a good general education of disciplinary and practical value to those who do not enter higher institutions.

### CLASSICAL COURSE.

| | |
|---|---|
| English | 4 years. |
| Mathematics | 4 " |
| Latin | 4 " |
| Greek | 3 " |
| History | 3 " |
| French or German | 1 year. |

### SCIENTIFIC COURSE.

| | |
|---|---|
| English | 4 years. |
| Mathematics | 4 " |
| Latin | 4 " |
| History | 3 " |
| French or German | 2 " |
| Natural Science | 3 " |

### GENERAL COURSE.

| | |
|---|---|
| English | 4 years. |
| Mathematics | 4 " |
| Latin | 2 " |
| History | 4 " |
| French or German | 2 " |
| Natural Science | 3 " |
| Commercial Law and Business Courses or Psychology and Ethics | 1 year. |

## I.

### The Classical Course.

This course of study is designed to furnish adequate preparation for any college. These are studies that are fundamental to a liberal education. Latin, Greek, Mathematics, and English are the bases of sound learning. They are the means of gaining knowledge and are a necessary part of the preparation of all who contemplate the more extended courses of study.

Progressive development is sought. In the languages emphasis is laid upon thorough knowledge of forms and usages, and composition is required from the first. The value of syntax and composition as disciplinary study can hardly be overestimated. Clear thought, close analysis, accurate expression, are everywhere insisted upon. In the higher classes the elements and qualities of style are studied and independent thought is encouraged.

## II.

### The Scientific Course.

This course prepares for the scientific and technical schools. It is based on Latin, Mathematics, English, and Natural Science. In place of Greek there are offered more extended courses in History and Modern Languages.

Considerable latitude is permissible in the arrangement of the studies of this course to meet the demands of varying requirements and the wants of special students. Students entering upon this course may be fitted for the Naval Academy at Annapolis or the West Point Military Academy in three years. Mathematics, which is fundamental to the study of all natural science, is supplemented by such studies in science that the whole course is admirably adapted to those who are to be engaged in scientific research and activity.

## III.

### The General Course.

This course is primarily for those who do not enter higher institutions. It offers four years of English, Mathematics, and History; three of Natural Science; two of Latin; two of French or German, and one of Business studies or Philosophical studies.

It is an Academic course, giving the mind thorough disciplinary training and contributing to its furnishings in many departments of knowledge. Attention is asked to the requirement of two years study of Latin. Latin is fundamental to the study of human civilization, and it affords a discipline and culture of mind in observation, reasoning, and expression that make it indispensable. A full year's work in purely business studies is offered. Commercial Arithmetic, Book-keeping, Commercial Law, and Business Forms constitute a desirable course for special students, and they enable those who wish to graduate to have the benefit of business training.

Very many of the boys of our city are compelled to forego a college education and to prepare themselves to enter at once, on leaving the Academy, some of the many avenues of self-support. This fact has been carefully considered, and this course is so arranged as to assist those who take it to make the best use of the time at their disposal.

## The Preparatory Year.

The course of study includes a year of preparatory work which offers to younger pupils not prepared for the regular academic work a uniform preparation, and insures also a high standard of requirement throughout the course. The worth of this is commended to those who are intending at a later time to enter their sons for the regular course at the Academy. The personal supervision of younger boys and their special preparation for the regular course of study is a feature in the policy of the School which experience has suggested. We believe the wisdom of this will appear to many whose boys, though yet too young to begin secondary studies, nevertheless need the systematic training of regular work and personal supervision.

This course of preparatory work includes English Grammar, Arithmetic, History, Geography, and elementary Latin. It is believed that the Latin, with its inflections and order of words, will help the pupil to understand English Grammar, and that it will make the transition from elementary work less abrupt, and will insure proficiency in the First Year's Latin. When it appears that an amount of work has been done equivalent to that of the sixth grade in the public schools, pupils may enter without examination upon the studies of this preparatory year.

## Entrance Requirements.

The requirements for entrance to the first year of the regular courses are (1) Elementary English Grammar, (2) Arithmetic (through percentage), (3) American History (Montgomery's or an equivalent), (4) Geography. Previous knowledge of Latin is not essential for admission to this class.

## Prize Scholarship Examinations.

Examinations for entrance will be given in the Academy building, 1335 H street, on Monday, September 28, 1896, beginning at nine o'clock a. m. These examinations will be upon the four subjects named; they are open to all who wish to take them, including the members of the Preparatory Class of the previous year. The pupil having the highest general average in these examinations will be given a free scholarship for one year; the pupil having the next highest average will be given a half scholarship for the same time.

Students who have completed the work of the Preparatory year may enter upon the First year without further examination. All others will be expected to take the entrance examination in September. Any who fail in their First year requirements may enter upon the work of the Preparatory year without examination if it appear that they are prepared to do so. Students who enter after the Academic year begins will, upon examination, be assigned to such classes as they are fitted for.

## Graduation.

Those completing any one of the three regular courses of study will receive a diploma. Special students who complete the prescribed work in three or more departments will receive a certificate of attainment in those studies. Students who enter upon any line of study will have due credit in that study for work satisfactorily completed in any school of like grade.

## INSTRUCTION.

The Academy is conducted on Christian principles, both in its discipline and its teachings, but no instruction is given and no influence exerted that is of a sectarian character. Effective work is dependent upon order, and order will be maintained. Subordination is essential to

the purpose of study, but, further than this, it is an end in itself. Self-discipline for its own sake is absolutely essential in education. Sympathy and confidence are the necessary relations of the teacher and the pupil. Such relations keep alive the boy in the man and develop the man in the boy. It is believed that all instruction should be an incentive to the pupil, and that that instruction only is wholesome which appeals to the whole man. Studies have been correlated with a view to the symmetrical development of the student, to an insight into the world in which we live, and to some command over its resources.

## I.

## English.

The study of English is required throughout every regular course. Work in English composition is constant and practical; themes are prepared by all the students and these are corrected and made the basis for positive instruction. The study of every other subject is made to contribute to the training in English.

It is believed that the study of formal grammar has been too much neglected in many schools. The return of grammar is already heralded. It will be taught from a text-book, with frequent exercises in parsing and analysis. A clear knowledge of the principles of syntax is important, and this demands systematic study. It is thought, too, that experience discourages the use of inductive text-books in the earlier years of secondary instruction. The pupil's attitude during this time is mainly receptive and this should define the character of his work. He is credulous that he may receive truth.

In the literature courses masterpieces are studied and memorized, and in the higher classes text-books are used only to give direction and form to the course.

The following lists are arranged for study and supplementary reading:

### PREPARATORY YEAR.

Kingsley. ..... ....Greek Heroes.
Irving..... ... Sketch Book.
Hawthorne.....Tales of the White Hills.
Macaulay.....Lays of Ancient Rome.
Lamb..... ..... ..... Tales from Shakespeare.
Longfellow.....The Courtship of Miles Standish.

FIRST YEAR.

Hughes.....Tom Brown at Rugby.
Scott.....Ivanhoe.
Stevenson.....Treasure Island.
Scott.....The Lady of the Lake.
Whittier.....Snow-Bound.
Longfellow.....Evangeline.

SECOND YEAR.

Irving.....Tales of a Traveller.
Cooper.....Deerslayer.
Hawthorne.....The House of the Seven Gables.
Wallace.....Ben-Hur.
Webster.....Adams and Jefferson; First Bunker Hill Oration.
Lowell.....The Vision of Sir Launfal.

THIRD YEAR.

Goldsmith.....The Vicar of Wakefield.
Blackmore.....Lorna Doone.
Shakespeare.....The Merchant of Venice.
Shakespeare.....Julius Cæsar.
Tennyson.....The Idylls of the King.
Ruskin.....Selections.
Emerson.....The American Scholar.

FOURTH YEAR.

Inductive studies on the College Requirement list of the following year.

In 1897, Shakespeare's The Merchant of Venice, Burke's Speech on Conciliation with America, Scott's Marmion, and Macaulay's Life of Samuel Johnson will form the list.

In 1898, Shakespeare's Macbeth, Burke's Speech on Conciliation with America, De Quincey's The Flight of a Tartar Tribe, and Tennyson's The Princess.

In 1899, Shakespeare's Macbeth, Milton's Paradise Lost, Books I and II, Burke's Speech on Conciliation with America, and Carlyle's Essay on Burns.

In addition to this, examinations will be given at intervals throughout the year on a course of general reading, also prescribed by the Colleges. The requirements for this portion of the work in English will be as follows:

In 1897 the books will be Shakespeare's As You Like It, Defoe's History of the Plague in London, Irving's Tales of a Traveller, Hawthorne's Twice-Told Tales, Longfellow's Evangeline, and George Eliot's Silas Marner.

In 1898 they will be Milton's Paradise Lost, Books I and II, Pope's Iliad, Books I and XXII, The Sir Roger de Coverley Papers in the Spectator, Goldsmith's The Vicar of Wakefield, Coleridge's Ancient Mariner, Southey's Life of Nelson, Carlyle's Essay on Burns, Lowell's The Vision of Sir Launfal, and Hawthorne's The House of the Seven Gables.

In 1899, Dryden's Palamon and Arcite, Pope's Iliad, Books I, VI, XXII, and XXIV, The Sir Roger de Coverley Papers in the Spectator, Goldsmith's The Vicar of Wakefield, Coleridge's The Ancient Mariner, De Quincey's The Flight of a Tartar Tribe, Cooper's The Last of the Mohicans, Lowell's The Vision of Sir Launfal, Hawthorne's The House of the Seven Gables.

## II.

## Mathematics.

These studies are of fundamental importance and are required throughout all the regular courses. The aim is thoroughness; the pupil is taught principles rather than rules, and examples are regarded as training in the knowledge of the principles which they illustrate. So far as possible all processes will be illustrated and explained by visible magnitudes, as the mind most readily grasps the relationship of quantities through the eye.

In Arithmetic the time will be devoted to the study of such practical examples as the boy meets at every turn. In percentage the more general applications will be studied. Intricate problems of exchange, customs, equation of payments, and all unintelligible applications of Arithmetic will be omitted. The aim will be to make the student master of such processes as he may need in life.

In Algebra the course in factoring will be emphasized as furnishing a firm foundation for all that follows. The identities and differences between Arithmetic and Algebra will be constantly illustrated.

In Geometry the pupil will be encouraged to seek original solutions. By oral recitation, without the aid of a drawing, he will be trained to a clear conception of the theorem and to facility in processes of reasoning. The work in original exercises will be thorough and constant, in order that the student may see that the principles he has studied are of general application.

## III.

## The Ancient Languages.

Latin and Greek are of the highest importance in the Secondary school. The work in these languages is preparatory to the appreciative study of their literatures. In this preparatory study Grammar and Composition become an end in themselves, and they are also a most efficient means of mental discipline. The man who knows no Latin or Greek has innumerable doors of scientific and professional activity closed to him, and he finds his own language a mystery.

The aim of the Academy is to graduate students who can write and explain Latin and Greek with a degree of readiness, and can translate these languages with ease and accuracy. Knowledge of the principles of Latin and Greek construction will be tested by constant exercise in composition.

Attention will be paid to Latin and Greek terms and roots with a view to their proper use in the construction of scientific terminology. Passages will be memorized, and written work will supplement oral work in the class-room, in order that ear and eye and memory may aid in fixing the forms of the language.

The text itself will be read and the pupil will be encouraged to appreciate the meaning without translation and in the order of the original. Questions on the text will, in general, be asked before the translation is begun. This holds attention on Latin forms and relations, and by removing difficulties beforehand, makes possible a rendering into idiomatic English.

## IV.

## The Modern Languages.

A knowledge of French and German not only opens to the student the treasures of two of the greatest and richest of all literatures, but it broadens his mind by presenting facts and ideas from a point of view widely different from that of the English-speaking races. The ability to read French and German is absolutely necessary to the student of science or of English literature.

The chief object in the lower courses is to enable the student to translate readily at sight, and ultimately to be able to understand the language

without the medium of English. To this end reading is begun very early in the course, and a large amount is read at sight during the year. Constant practice in pronunciation is given. Only the essentials of grammar are taught, the finer points of syntax being reserved for later years. Great stress, however, is laid upon thoroughness in these essential parts of grammar, as otherwise intelligent reading is impossible; but the grammatical work is always kept strictly subordinate to the main object of the course—ability to read at sight.

## V.

## History.

In accordance with the increased importance attaching to the study of history the courses of this department have been considerably extended. American history is studied throughout the preparatory year. As important problems in government and civilization appear in their simplest form in the history of Greece this is made the basis for the work of the regular course. Comprehensive work in English history is required in the earlier years. Those who demand special studies in American history may take them in connection with Civil Government in the third year. A course in Mediæval history is also given in this year, and in the last year there is arranged an intensive study of topics from Greek and Roman history.

History connects itself easily with English. Each is made to strengthen the other through the preparation of essays on historical themes. Supplementary reading lists, specially devoted to American topics, are arranged and pupils are encouraged to take this work in connection with the subjects studied.

## VI.

## Natural Science.

This department of instruction will be greatly enlarged. Desirable courses of study will be given in Physical Geography, Chemistry, and Physics. A laboratory will be equipped at the Academy to afford all facilities for illustration and practice, and such attention will be paid to these branches as their importance demands.

Physical Geography will be made a comprehensive study, treating of the physical environment of man. It will deal specifically with the

physical features of the earth, with elementary studies in botany, zoölogy, astronomy, meteorology, and anthropology. It will be taught, also, with a view to its worth in training powers of observation, of scientific imagination, and of reasoning. Ready access to the National Museum makes possible valuable object-study in many lines of this work.

Chemistry will precede Physics in the course, in order that the pupil may have a better mathematical preparation for the study of Physics. The text-books and the laboratory will be mutually supplementary, and laboratory note-books will embody a record of all work done.

## GENERAL INFORMATION.

### Term Examinations and Reports. The Regulation of Absences.

The School year will consist of three terms: the first will end at the Christmas holidays; the second at the spring recess; the third in June. Examinations will be given at the end of each term, and term reports of work and conduct will be rendered. Examination work will count one-third in determining scholastic standing. No student will be permitted to enter upon the work of a higher class in any study until that of the lower has been satisfactorily completed.

An excuse, duly signed by the parent or guardian, will be required for every case of absence or tardiness. Excuse-blanks designating the absence or tardiness will be forwarded to the parent or guardian for signature. Absence or tardiness that remains unexcused at the expiration of seven days will be charged against the deportment of the student. All absence necessarily affects scholarship, but unexcused absence and tardiness also affect deportment.

### Scholarships.

A limited number of scholarships are available for such students as need assistance. These scholarships may be assigned under certain explicit and invariable conditions. The conditions are (1) that the student's deportment be above censure, and (2) that he attain an average rank of at least .75 in his studies.

In addition to the above scholarships, the "Admiral Powell Endowment" provides a few free scholarships, which will be given (under the same conditions) to students preparing for admission to the United States Naval Academy at Annapolis.

Failure to satisfy the requirements of rank and deportment will constitute a forfeiture of the scholarship, and upon such forfeiture it will be withdrawn.

## Friday Lectures.

A course of Friday afternoon lectures has been instituted this year. These lectures, made possible through the kindness of many friends and the close relations of the Academy with other departments of the University, have supplemented the routine work of the School by very entertaining and helpful lines of general culture. Addresses have thus far been made by President Whitman, Dr. Lee D. Lodge, Dr. Otis T. Mason, Mr. E. Hilton Jackson, Prof. Cleveland Abbe, and Dr. A. P. Montague.

## Literary Society.

The Hermesian Society, composed of students of the two higher classes, meets weekly for practice in debate and for improvement in composition.

The society is under the general supervision of the instructors, but this supervision never takes the form of disagreeable interference.

Three medals are given by this society. One is awarded by Mr. A. M. Sayre to the successful contestant in a prize debate. Another medal for excellence in debate is given each year by the society, and is awarded to that member who has made the best record as a debater throughout the entire year. The third medal is given by the society to the best essayist.

## Annual Prizes.

The Regular Prizes of the Academy consist of First and Second Scholarship Medals in each class.

Gold medals are also given to those students who have been blameless in deportment and against whom there is no record of absence or tardiness during the entire session.

Through the liberality of the late Mr. Samuel Norment, President of the Central National Bank of Washington, the authorities of the School will award annually three prizes ($25, $20, and $15) to the students whose scholarship, combined with irreproachable conduct, shall entitle them to be considered respectively the First, Second, and Third Honor Boys of the School. These prizes will be awarded only to those who take the full course.

The following special prizes are also given:

The Roome Gold Medal, founded in honor of the lamented and

scholarly Dr. Edward Roome, for excellence in the Greek Language, given by Mrs. Lillian K. Roome.

The Gold Medals for excellence in Declamation at the Commencement, given by Mr. B. H. Warner.

The Sayre Gold Medal, for excellence in Debate.

## HONOR ROLL.

### (Session 1894-'5.)

FOR HIGH GRADE OF SCHOLARSHIP.

First Class—First Prize: David Laurance Chambers.
Second Prize: Stanton C. Peelle.

Second Class—First Prize: Manfredi F. Lanza.
Second Prize: Arthur Prince Spear.

Third Class—First Prize: Nelson H. Rollins.

Fourth Class—First Prize: Raymond Outwater.

Jackson Gold Medal in Latin—David Laurance Chambers.

Roome Gold Medal in Greek—David Laurance Chambers.

Hodgkins Gold Medal in Mathematics—David Laurance Chambers.

Alden Gold Medal in English Composition—David Laurance Chambers.

Cuthbert Gold Medal in History—David Laurance Chambers.

Townsend Gold Medal for Elocution during the Session—William Dent Sterrett.

The Webster and Depew Gold Medals for Declamation at the commencement, presented by B. H. Warner, Esq., awarded by a Committee of Judges—first award, David Laurance Chambers; second award, William Dent Sterrett.

Sayre Gold Medal for Excellence in Debate—Manfredi F. Lanza.

Hermesian Gold Medal for Excellence in Composition—Rolvix Harlan.

Honorable mention of David Laurance Chambers.

Prizes founded by the late Samuel Norment, Esq., and now given by Mrs. Norment, awarded to the highest-honor boys of the School:

First prize—$25 in gold: David Laurance Chambers.

Second prize—$20 in gold: Raymond Outwater.

Third prize—$15 in gold: Manfredi F. Lanza.

Gold medals for Punctuality and Deportment:

Four years—George Emery Green.

Three years—David Laurance Chambers and Stanton C. Peelle.

Two years—William Saunders Manning.

One year—Louis Glavis, Manfredi F. Lanza, Selma M. Mason, Raymond Outwater, George I. Raybold, Nelson H. Rollins, Otto L. Veerhoff, Thom Williamson, Jr., W. Lothrop Woodward, and W. B. Yoder.

## Graduates.

| | |
|---|---|
| J. William Beatty, | English, French, Mathematics, Physics, Latin, Greek. |
| Lorenzo Starr Brown, Jr., | English, French, Mathematics, Physics. |
| D. Laurance Chambers, | English, French, Mathematics, Latin, Greek. |
| William Plumer Copeland, | English, Mathematics, Physics. |
| William Lowry Farnham, | English, French, Physics. |
| Donald C. Fugitt, | English, French, Mathematics, Physics. |
| G. Emery Green, | English, French, Physics. |
| Rolvix Harlan, | English, French, Mathematics, Physics. |
| William Saunders Manning, | English, French, Mathematics, Physics. |
| Selma M. Mason, | English, French, Mathematics, Physics. |
| William Mitchell, | English, French, Mathematics, Physics, Latin. |
| Stanton C. Peelle, | English, French, Mathematics, Physics, Latin, Greek. |
| Bishop C. Perkins, | English, French, Mathematics, Physics. |
| Preston B. Ray, | English, French, Mathematics, Physics. |
| George I. Raybold, | English, French, Mathematics, Physics. |

## Students.

| NAME. | PATRON. | ADDRESS. |
|---|---|---|
| W. Elmer Bacon | Mr. S. H. Bacon | 1416 N St. |
| Wirt Barham | Hon. J. A. Barham | "Ebbitt." |
| Charles Bell | Gen. George Bell, U. S. A. | 1909 G St. |
| Earl Biscoe | Maj. H. L. Biscoe | 813 21st St. |
| Charles Bittinger | Mrs. I. M. Bittinger | 1421 K St. |
| Everett H. Brosius | | 2420 14th St. |
| Augustus J. Burgdorf | Mr. Augustus Burgdorf | 1334 N. Y. Ave. |

| NAME. | PATRON. | ADDRESS. |
|---|---|---|
| Frederick B. Burke | Mr. T. W. Burke | 800 L St. |
| Charles T. Cabrera, Jr. | Mr. Charles T. Cabrera | 1914 Penn. Ave. |
| Liddell Caffery | Hon. Donaldson Caffery | 1334 19th St. |
| Harry Clark Caldwell | Dr. Charles T. Caldwell | 949 S St. |
| Horace W. Chittenden | Mr. George B. Chittenden | Mt. Pleasant. |
| Andrew J. Cummings | Mrs. Mary E. Cummings | Chevy Chase, Md. |
| Morris E. Dow | Mrs. Wm. Coppinger | 927 French St. |
| John C. Drake, Jr. | Mrs. E. B. Drake | 1321 M St. |
| Otis B. Drake | Mrs. E. B. Drake | 1321 M St. |
| James F. Dunlop | Mr. Wm. L. Dunlop | 3014 N St. |
| Frank Norton Everett | Mr. Edgar L. Everett | "Concord." |
| Joseph H. Falconer | Mr. W. C. Johnson. | 1502 13th St. |
| Weston Brown Flint | Col. Weston Flint | 1213 K St. |
| Carroll T. Fugitt | Mr. N. B. Fugitt | 1212 K St. |
| Joaquin A. Gana | Señor Domingo Gana | 1319 K St. |
| Louis Glavis | Dr. George O. Glavis | 1701 Q St. |
| Lafayette Greenlaw | Mr. S. B. Greenlaw | Oak Grove, Westmoreland Co., Va. |
| Raphael N. Gwynn | Mr. R. C. Gwynn | 17 Iowa Circle. |
| Charles H. Holmead, Jr. | Mr. Charles H. Holmead | 1527 I St. |
| A. Lawrence Hopkins | Mr. Archibald Hopkins | 1826 Mass. Ave. |
| Alfred Francis Hopkins | Mrs. F. A. M. Hopkins | 1730 I St. |
| Manfredi F. Lanza | Mme. Clara Lanza | 13th and Princeton Sts. |
| Melville W. Lindsey | Mr. Samuel E. Lindsey | Alexandria, Va. |
| William V. Mason, Jr. | Mrs. Eva M. Mason | 1706 F St. |
| F. Vallette McNair | Commodore F. V. McNair, U. S. N. | Yokohama, Japan. |
| Arthur C. Morgan | Mr. R. W. Morgan | 2410 Pa. Ave. |
| Henry J. Mullin | Mr. Z. T. Mullin | "Bancroft." |
| William Dunlop Owens | Dr. Thomas Owens, U. S. N. | 1203 N. H. Ave. |
| Raymond Outwater | Rev. Theron Outwater | 1352 B St., S. W. |
| Bennett L. Porter | Mr. M. G. Porter | 1538 I St. |
| Wallace A. Ritchie | Mr. J. Suit Ritchie | 620 E St., N. E. |
| Richard D. Rittenour | Mr. N. D. Rittenour | 815 King St., Alexandria, Va. |
| Nelson Rollins | Mrs. M. F. Rollins | 1261 4½ St., S. W. |
| G. M. Rye, Jr. | Mr. G. M. Rye | "Metropolitan." |
| William Sioussat | Mr. C. M. Sioussat | 1736 Q St. |

| NAME. | PATRON. | ADDRESS. |
|---|---|---|
| Arthur P. Spear | Gen. Ellis Spear | Columbia Heights. |
| Davis Fonville Stakely | Rev. Charles A. Stakely | 1414 16th St. |
| Douglas Sterrett | Rev. J. M. Sterrett | Columbian University. |
| William D. Sterrett | Rev. J. M. Sterrett | Columbian University. |
| Andrew Bryson Taylor | Medical Director J. Y. Taylor, U. S. N. | 1727 Q St. |
| William J. G. Thomas | Mr. Van Buren Thomas | 1839 6th St. |
| J. E. Van Auken | Mr. F. L. Van Auken | 1304 F St. |
| Otto L. Veerhoff | Mr. W. H. Veerhoff | 910 8th St. |
| Louis W. Weaver | Mrs. A. M. Weaver | 412 T St. |
| George Wedderburn | Mr. Alexander Wedderburn | 931 R. I. Ave. |
| John Wignall | Mrs. R. R. West | Brookland, D. C. |
| W. Lothrop Woodward | Mr. S. W. Woodward | 2015 Wyoming Ave. |
| Gasquet di Zerega | Mr. Alfred di Zerega | 2114 O St. |

Students in the Academy.....55.

## Calendar.

1896.

Sept. 28, Monday.....Entrance Examinations.
Sept. 30, Wednesday.....First Term begins.
Nov. 26–29, inclusive.....Thanksgiving Recess.
Dec. 14–18, inclusive.....Examinations.
Dec. 18, Friday.....First Term closes.

WINTER VACATION.

1897.

Jan. 4, Monday.....Second Term begins.
Feb. 22, Monday.....Washington's Birthday, Holiday.
March 15–17, inclusive.....Examinations.
March 17, Wednesday.....Second Term closes.
March 18–21, inclusive.....Spring Recess.
March 22, Monday.....Third Term begins.
April 16, Friday.....Holiday.
May 31, Monday.....Memorial Day, Holiday.
June 1–4, inclusive.....Examinations.
June 4, Friday.....Third Term closes.
June 8, Tuesday.....Annual Graduation Exercises.

## Expenses.

Tuition for the Scholastic year, $100. Students received under the former rates of tuition may continue in the Academy at the same charge.

Students taking Chemistry or Physics will be charged a fee of $10 to cover cost of materials and breakage in laboratory practice.

All bills must be paid half yearly in advance, the first half due in September, the second half February 1. Bills are payable to

ROBERT H. MARTIN,
*Secretary and Treasurer of Columbian University.*

## To Patrons.

The Dean will be at the Academy, 1335 H street, northwest, from the twenty-first of September until the twenty-sixth, inclusive, from 10 o'clock a. m. to 1 o'clock p. m., to meet patrons and answer inquiries concerning the School. Entrance examinations will be given on Monday, the twenty-eighth of September. All new students wishing to enter upon the work of the First year will be expected to take these examinations. The Academic year begins on Wednesday, the thirtieth of September.

Patrons and friends are invited to visit the Academy and inspect the work of the class-room. Catalogues and full information will be sent to any address on application to

WILLIAM ALLEN WILBUR,
*Dean of the Academy.*

# CATALOGUE

OF

# THE COLUMBIAN UNIVERSITY

WASHINGTON, D. C.,

1896-'97.

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**FOUNDED 1821.**

# CALENDAR FOR 1896.

## SEPTEMBER.

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
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## OCTOBER.

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## NOVEMBER.

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## DECEMBER.

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# CALENDAR FOR 1897.

## JANUARY.

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## FEBRUARY.

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## MARCH.

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## APRIL.

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## MAY.

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## JUNE.

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## JULY.

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## AUGUST.

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## SEPTEMBER.

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## OCTOBER.

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## NOVEMBER.

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## DECEMBER.

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# CALENDAR FOR 1898.

## JANUARY.

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## FEBRUARY.

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## MARCH.

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## APRIL.

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## MAY.

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## JUNE.

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## JULY.

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## AUGUST.

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# CATALOGUE

OF

# THE COLUMBIAN UNIVERSITY

WASHINGTON, D. C.,

1896-'97.

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JUDD & DETWEILER,
PRINTERS TO THE UNIVERSITY AND TO THE SCIENTIFIC SOCIETIES
OF WASHINGTON
1897.

## KEY TO THE MAP.

The circles on the map are drawn with radii of 2,000, 4,000, and 6,000 feet respectively from the main building of the University as a center.

A—The main building of the University, southeast corner 15th and H streets, N. W.
B—The Columbian Academy.
C C C C—Parcels of ground belonging to the University.
D—The Medical and Dental School building.

LIBRARIES, NUMBERED IN THE ORDER OF THEIR PROXIMITY TO THE UNIVERSITY.

*Within less than a five or six minutes' walk:*

1. Library of Department of Labor, 8,000 volumes.*
2. " " Department of Justice, 25,000 "
3. " " Treasury Department, 30,000 "
3. " " Light-House Board 3,000 "
4. " " Bureau of Statistics, 5,000 "
5. " " Geological Survey, 40,000 "
5. " " Bureau of Ethnology. 5,000 "
6. " " Corcoran Gallery of Art, 2,500 "
7. " " War Department, 49,000 "
7. " " Navy Department, 29,000 "
7. " " Department of State, 60,000 "
7. " " War Records Office, 2,000 "
7. " " Hydrographic Office, 3,000 "
8. " " Museum of Hygiene, 11,000 "

*Within a five or ten minutes' ride by the street railway:*

9. Library of United States Patent Office, 67,000 volumes.
—. " " Interior Department, 13,000 volumes.
—. " " Post Office Department, 11,000 volumes.
10. " " Bureau of Education, 68,000 volumes.
11. " " Department of Agriculture, 53,000 volumes.
12. " " Army Medical Museum, 105,000 volumes.
13. " " United States National Museum, 25,000 volumes.
14. " " United States Weather Bureau, 11,000 volumes.

*Within a fifteen minutes' ride by the street railway:*

15. The Library of Congress, 900,000 volumes.
15. The Library of the United States Supreme Court, 80,000 volumes.
15. The Library of the Smithsonian Institution, 250,000 volumes.
16. The new Congressional Library.
17. Library of the United States Coast and Geodetic Survey, 14,000 volumes.
18. Site of the old United States Naval Observatory.

*Within a thirty minutes' ride by the street railway:*

Library of the new United States Naval Observatory (not indicated on map), 18,000 volumes.
Library of Nautical Almanac Office, 2,000 volumes.

*Number of volumes January 1, 1897.

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# UNIVERSITY CALENDAR.

## Current Academic Year, 1896-'97.

1896.

| | | |
|---|---|---|
| Sept. | 28. Examination of Candidates for Admission to College, Medical and Dental Schools. | Monday. |
| | 29. | Tuesday. |
| Sept. | 30.—Session of all the Departments begins. | Wednesday. |
| Nov. | 26–28.—Thanksgiving Recess. | |
| Dec. | 8.—Annual Meeting of Alumni. | Tuesday. |
| Dec. | 24–Jan. 4, 1897.—Christmas Recess. | |

1897.

| | | |
|---|---|---|
| Jan. | 18.—First Term College Examinations begin. | Monday. |
| Jan. | 21. First Term Scientific School Examinations begin. | Thursday. |
| Feb. | 1. Second Term of College and Scientific School begins. | Monday. |
| Feb. | 22.—Washington's Birthday. | Holiday. |
| Apr. | 16–19.—Easter Recess. | |
| Apr. | 27.—Commencement of Dental School. | Tuesday. |
| Apr. | 29.—Commencement of Medical School. | Thursday. |
| May | 3. Examinations for Degrees in Graduate School to be completed. | Monday. |
| May | 17. Reports of examinations for Degrees in the Graduate School to be rendered. | Monday. |
| May | 18. Examinations for Degrees in Law School to be completed. | Tuesday. |
| May | 19. Examinations for Degrees in College and Scientific School to be completed. | Wednesday. |
| May | 24. Second Term Examinations in College and Scientific School begin. | Monday. |
| May | 31.—Decoration Day. | Holiday. |
| June | 2.—Doctorate Disputation. | Wednesday. |
| June | 7.—Commencement of Graduate School. | Monday. |
| June | 7.—Commencement of the Academy. | Monday. |
| June | 7.—Exhibition Day. | Monday. |
| June | 8.—Commencement of Law School. | Tuesday. |

1897.

June 9. Commencement of College and Scientific School. Wednesday.
June 14.—Annual meeting of the Corporation. Monday.
June 21.—Session of the Summer School begins. Monday.

## Academic Year 1897-'98.

1897.

Sept. 27. Examination of Candidates for Admission to College, Medical and Dental Schools. Monday.
Sept. 28. Examination of Candidates for Admission to College, Medical and Dental Schools. Tuesday.
Sept. 29.—Session of all the Departments begins. Wednesday.
Nov. 25-27.—Thanksgiving Recess.
Dec. 1.—Annual Meeting of Alumni. Wednesday.
Dec. 24-Jan. 4, 1898.—Christmas Recess.

1898.

Jan. 17.—First Term College Examinations begin. Monday.
Jan. 20. First Term Scientific School Examinations begin. Thursday.
Jan. 31. Second Term of College and Scientific School begins. Monday.
Feb. 22.—Washington's Birthday. Holiday.
Apr. 8-11.—Easter Recess.
May 2. Examinations for Degrees in Graduate School to be completed. Monday.
May 16. Reports of Examinations for Degrees in the Graduate School to be rendered. Monday.
May 17. Examinations for Degrees in Law School to be completed. Tuesday.
May 18. Examinations for Degrees in College and Scientific School to be completed. Wednesday.
May 23. Second Term Examinations in College and Scientific School begin. Monday.
May 29.—Baccalaureate Sermon. Sunday.
May 30.—Decoration Day. Holiday.
June 1.—Doctorate Disputation. Wednesday.
June 1.—University Commencement. Wednesday.
June 6.—Annual Meeting of the Corporation. Monday.
June 20.—Session of the Summer School begins. Monday.

# THE COLUMBIAN ACADEMY.

## CALENDAR.

1897.

September 20, Monday.....Entrance Examinations.
September 21, Tuesday.....First Term begins.
November 25–28, inclusive.....Thanksgiving Recess.
December 20–22, inclusive .....Examinations.
December 22, Wednesday .....First Term closes.

### Winter Vacation.

1898.

January 3, Monday.....Second Term begins.
February 22, Tuesday.....Washington's Birthday, Holiday.
March 21–23, inclusive.....Examinations.
March 23, Wednesday.....Second Term closes.
March 24–27, inclusive.....Spring Recess.
March 28, Monday.....Third Term begins.
April 8, Friday.....Good Friday, Holiday.
May 30, Monday.....Memorial Day, Holiday.
June 6–8, inclusive.....Examinations.
June 8, Wednesday .....Third Term closes.
June 10, Friday.....Annual Graduation Exercises.

## EDUCATIONAL FACILITIES OF WASHINGTON.

Washington is rich beyond any other American city, not only in the special libraries enumerated in the page facing the map, but also in large collections, illustrative of the various arts and sciences, which have been accumulated at the National Capital by the action of Congress through a long series of years. Under many of these heads Washington is not surpassed by any European capital. In view of the fact that in collecting these archives and materials it was the original purpose of the Government "to promote research and the diffusion of knowledge," the Congress of the United States has made these treasures accessible to students under the terms of the following Joint Resolution, approved April 12, 1892:

"*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled*, That the facilities for research and illustration in the following and any other governmental collections now existing or hereafter to be established in the city of Washington for the promotion of knowledge shall be accessible, under such rules and restrictions as the officers in charge of each collection may prescribe, subject to such authority as is now or may hereafter be permitted by law, to the scientific investigators and to students of any institution of higher education now incorporated or hereafter to be incorporated under the laws of Congress or of the District of Columbia, to wit:

1. Of the Library of Congress.
2. Of the National Museum.
3. Of the Patent Office.
4. Of the Bureau of Education.
5. Of the Bureau of Ethnology.
6. Of the Army Medical Museum.
7. Of the Department of Agriculture.
8. Of the Fish Commission.
9. Of the Botanic Gardens.
10. Of the Coast and Geodetic Survey.
11. Of the Geological Survey.
12. Of the Naval Observatory."

The Columbian University is further authorized to state that certain libraries of eminent men of science connected with the scientific service of the Government, and some of which are exceptionally valuable, will be open to such students of the Graduate School as shall be qualified to use them for purposes of original research.

## Educational Relations of the University.

The Columbian University has no organic connection with any literary or scientific department of the Government, but its relations with them all are close and intimate. The President of the United States, the Chief Justice of the United States, and the Attorney General are honorary Overseers. Two Associate Justices of the Supreme Court of the United States and one Associate Justice of the Supreme Court of the District of Columbia are active members of its Law Faculty. The Director of the Bureau of Ethnology is a trustee of the University, and the Smithsonian Institution, the National Museum, the United States Naval Observatory, the Nautical Almanac Office, the Signal Corps of the United States Army, the Army Medical Museum, the Coast and Geodetic Survey, the United States Department of Education, the United States Weather Bureau, the Bureau of Chemistry, the Bureau of Animal Industry of the Department of Agriculture, and the Bureau of the Mint are all represented in the Faculty of the University, and some of these departments have several representatives in its teaching body. The National Academy of Sciences is represented both in the Board of Trustees and in the Faculty of the University. The President of the National Geographic Society is a member of its Board of Trustees. The President of the Society of Philosophical Inquiry is Professor of Philosophy in the University.

## Other Scientific Facilities in Washington.

Washington is as much the scientific center as it is the legislative, executive, and judicial center of the United States. The great scientific operations of the Government have their bureaus of direction and administration at the National Capital, and with each of these bureaus a large corps of scientific workers is necessarily connected. For purposes of scientific stimulus and inquiry these workers are here gathered into societies, which hold public meetings for the reading and discussion of papers. The membership of the several societies comprises an aggregate of more than 1,200 persons. The Anthropological Society (Dr. Frank Baker, President), numbering, according to the last Scientific Directory, 132 active, 33 corresponding, and 23 honorary members, meets fortnightly or oftener, on Tuesday evenings. The Biological Society (L. O. Howard, President), with 130 active and 26 corresponding members, meets on alternate Saturdays, from October to May. The Chemical Society (W. D. Bigelow, President), with 105 members, holds meetings on the second

Thursday of each month. The Entomological Society (Mr. C. L. Marlatt, President), with 35 resident and 105 corresponding members, meets on the first Thursday of each month. The National Geographic Society (the Hon. Gardiner G. Hubbard, LL. D., President), with 1,386 members, meets every Friday. The Philosophical Society (Marcus Baker, President), with 120 active and 74 non-resident members, holds its sessions on alternate Saturdays. The Mathematical Section of this Society (Professor J. Howard Gore, Chairman) meets on Wednesday, at irregular intervals, in the mathematical lecture-room of the Columbian University. The Society of Philosophical Inquiry (Professor J. MacBride Sterrett, President) meets every Tuesday afternoon during term time in the philosophical lecture-room of the Columbian University. The Philological Association of the Columbian University meets, at the call of the Secretary, in the Latin recitation-room of the University. The Geological Society (Arnold Hague, President), comprising 103 active members and 41 corresponding members, meets on the second and fourth Wednesdays of each month. The annual meetings of the Anthropological, Biological, Geographic, and Philosophical Societies, and occasionally their special meetings of public interest, are held in the main lecture hall of the Columbian University.

The National Academy of Sciences (Dr. Wolcott Gibbs, President) meets annually in Washington in April.

During the Christmas holidays the lecture halls of the University are occupied from year to year by the American Historical Association, the American Church History Association, the Modern Language Association of America, the American Folk-Lore Society, and the American Dialect Society for the purposes of their annual meetings. These meetings are open to the students of the University.

# THE UNIVERSITY CORPORATION.

THE REV. BENAIAH L. WHITMAN, D. D.,
*President of the Corporation.*

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THE CHIEF JUSTICE OF THE UNITED STATES.
THE ATTORNEY GENERAL OF THE UNITED STATES.

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## Standing Committees of the Corporation for the Academic Year 1896-'97.

*Executive Committee.*

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*Committee on Nominations to Fill Vacancies in the Corporation.*

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*Committee on the Columbian Academy.*

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Messrs. NOYES and CURRY.

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*Committee on the Corcoran Scientific School.*

Messrs. POWELL, HUBBARD, and MASON.

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Messrs. ——— and GALLAUDET.

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# ALUMNI ASSOCIATION.

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GEORGE H. WALKER, LL. M.

# ENDOWMENTS.

The value of the University's property and endowments is estimated at about $1,000,000. The endowments need an increase in every direction. New buildings, or an enlargement of existing structures, are required to accommodate the great increase of students in the Law, Medical, Dental, and Scientific Schools.

The proposed School of Comparative Jurisprudence calls for an endowment of $250,000.

The following announcements, approved by the Board of Trustees, are extracted from the Annual Report of 1891:

1. Scholarships are rated at two thousand dollars each, and friends of the University are invited to found one or more of them.

2. Fellowships and Lectureships are rated at ten thousand dollars each, the proceeds of the funds to be devoted to endowing courses of lectures or to paying the expenses of meritorious students.

3. Professorships are rated at eighty thousand dollars each, and special "Schools" or "Departments" at two hundred thousand dollars, the income to be devoted to the support of professors or of such Schools, in accordance with the present organization of the Columbian College, the Corcoran Scientific School, and the School of Graduate Studies.

By an act of Congress approved March 3, 1873, the act to incorporate The Columbian College, in the District of Columbia, approved February 9, 1821, was so far modified as to provide, *inter alia*, "that said corporation shall be hereafter known and called by the name of The Columbian University, and in that name shall take, hold, and manage all the estate and property now belonging to said College, or that may hereafter be conveyed, devised, or bequeathed to said corporation by its original name."

# FORMS OF BEQUESTS.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be applied, at their discretion, to the general purposes of the University.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them and called the —— Scholarship fund. The interest of this fund shall be applied, at their discretion, to the encouragement of deserving students.

I give and bequeath to the Overseers and Trustees of The Columbian University the sum of —— thousand dollars, to be safely invested by them as an endowment for the support of (the School of ——), (a Professorship of ——), (a Lectureship in the School of ——), (a Fellowship in the School of ——) in the University, &c.

It may be proper to explain that the term "School" has both a general and a special significance in the classifications of the Columbian University. Generally, it means a combination of several associated chairs, such as the "Law School," the "Medical School," the "School of Graduate Studies." Specially, it means any separate specialty which forms an integral part of these larger combinations, as the "School of English," the "School of Greek," the "School of Chemistry." Such specialties may sometimes require a large corps of associated professors and instructors, The flexibility of the system lends itself to organic growth by fostering an unlimited specialization of science or culture in connection with an unlimited combination of University studies. In the Corcoran Scientific School a separate specialty is called a "Department."

# OFFICERS OF INSTRUCTION AND GOVERNMENT.

ACADEMIC YEAR 1896–'97.

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2115 Bancroft Place, N. W.

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THEODORE FRIEBUS, JR., *Acting Professor of Fine Arts as Applied to Architecture*,
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Metropolitan Club.

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110 M Street, N. W.

JONATHAN R. HAGAN, D. D. S., *Professor of Oral Surgery and Demonstrator in Charge of Infirmary*,
612 Thirteenth Street, N. W.

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Department of Agriculture.

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1009 Thirteenth Street, N. W.

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1688 Thirty-first Street, N. W.

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1830 T Street, N. W.

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1130 Twelfth Street, N. W.

J. C. HORNBLOWER, *Professor of Architecture*,
1509 H Street, N. W.

PRESLEY C. HUNT, M. D., *Assistant Demonstator in Anatomy*,
2015 N Street, N. W.

ADONIRAM JUDSON HUNTINGTON, A. M., D. D., *Professor of Greek*,
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1603 K Street, N. W.

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1711 H Street, N. W.

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821 Sixteenth Street, N. W.

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The lectures given in University Hall, other than those given to the students in law, are open to all students in the University and to the public. During the session of 1896-'97 the following lectures have been delivered:

Professor FRANK H. BIGELOW.—John de Wycliffe, the English Reformer.

Reverend FRANK SEWALL.—Idealism in Literature.

Professor EDWARD FARQUHAR.—The Norman Conquest.

Reverend FRANK SEWALL.—Idealism in Science.

Professor M. M. RAMSEY.—The Coming of the Bourbon.

Professor A. P. MONTAGUE.—The Development of a Warlike People.

Professor C. E. MUNROE.—Man's Control of Energy.

Honorable WILLIAM T. HARRIS.—National Spirit of the English, French, and German.

Professor W. W. JOHNSTON.—Bennett and the Revolution in the Treatment of Pneumonia.

Honorable JOHN R. PROCTER.—Industrialism *vs.* Militarism.

Professor E. A. DE SCHWEINITZ.—Useful and Injurious Germs.

Reverend CHARLES JAMES WOOD.—Survivals in Literature.

Professor W. K. BUTLER.—Spectacles, A Focal Point in the World's Development.

Professor M. D. LEARNED.—Germans in the United States.

Professor J. H. GORE.—In the Wake of the Pilgrims.

Mr. E. C. MESSER.—1, Realism in Art; 2, Is There a Grammar of Art?; 3, Art and the Critic.

# THE COLUMBIAN COLLEGE.

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Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English and Anglo-Saxon.

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Professor of Mathematics and Secretary of the Faculty.

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HON. WILLIAM L. WILSON, LL. D.,
Lecturer on American Economic Legislation.

HON. JOHN W. POWELL, LL. D.,
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OTIS T. MASON, PH. D.,
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*Committee on Revision of Studies.*
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The College is open to students of both sexes.

The regular course of instruction is comprised in thirteen schools, as follows:

I. SCHOOL OF ENGLISH: including English Philology, Anglo-Saxon, English Literature, Rhetoric, and Forensics.

II. SCHOOL OF GREEK: including the Greek Language and Literature.

III. SCHOOL OF LATIN: including the Latin Language and Literature.

IV. SCHOOL OF ROMANCE LANGUAGES: including the French Language and Literature, the Spanish Language and Literature, and the Italian Language and Literature.

V. SCHOOL OF GERMANIC LANGUAGES.

VI. SCHOOL OF MATHEMATICS: including Pure Mathematics and Mechanics.

VII. SCHOOL OF CHEMISTRY: General, Inorganic and Organic Chemistry, Laboratory Practice, Qualitative and Quantitative Analysis.

VIII. SCHOOL OF PHYSICS.

IX. SCHOOL OF PHILOSOPHY.

X. SCHOOL OF POLITICAL SCIENCE.

XI. SCHOOL OF THE FINE ARTS.

XII. SCHOOL OF HISTORY: including Ancient, Mediæval, and Modern History.

XIII. SCHOOL OF CIVIL ENGINEERING.

## School of English.

PROFESSOR POLLARD.

The aims in this department will be to aid the student in acquiring the ability to use the English language correctly and effectively; to acquaint him with the linguistic kinships and historical development of the language from its earliest stages to its present structure. English literature is studied that the student may become acquainted with the history of our literary development and with great English masterpieces, for purposes of broader culture and of intelligent literary criticism, for introducing the student to literature as an art, and for revealing the store of unfailing enjoyment which the best literature affords.

1. The rhetorical principles of style and invention, with frequent written exercises and systematic criticism; later, with study of the style of standard authors. Two hours a week.
Text-books: Genung's Practical Rhetoric and, as required, texts of selected authors.

2. Introductory general course in the history of English literature, followed by a study of the development of English prose style from selected readings. One hour a week.
Text-book: Pancoast's Representative English Literature.

3. History of the English Language. Two hours a week, first term.
Text-book: Lounsbury or Emerson.

4. American Literature, its development and masterpieces; readings, lectures, investigations. Two hours a week, second term.
Text-book: Beers's or Pancoast's American Literature.

5. Forensics, a practical course in argumentation, with preparation of briefs, oral and written arguments, study of forensic masterpieces. One hour a week.

6. Poets and Prose Writers of the Nineteenth Century; readings, criticisms. Two hours a week, first term.
Texts: As may be required.

7. The Elizabethan Period, with special study of Shakespeare and the drama. One hour a week.

8. Anglo-Saxon Language and Literature. Two hours a week, first term.

Text-book: Bright's Anglo-Saxon Reader.

9. Beowulf. Two hours a week, second term.

10. Chaucer and Middle English. Two hours a week, second term.

Text-book: Skeat's Chaucer (abridged edition).

11. The Modern English Romantic Movement. One hour a week, first term.

12. The "Lake Poets"—Wordsworth, Coleridge, and Southey. One hour a week, second term.

13. The Essay, as a Literary Form, with study and criticism of great English essayists. One hour a week.

14. Advanced Course in English Literature; investigation and criticism. For reference, Ten Brink, or Saintsbury, and Gosse. One hour a week.

15. Special courses may be arranged looking to investigation of special linguistic problems, or the study of particular literary movements, or the close examination of particular authors. These investigations will be reported in theses, and, in order to enter upon them, special permission must be obtained.

## School of Greek.

PROFESSOR HUNTINGTON.

In this School instruction is given in the Greek Language and Literature. The following books are used as text-books or for reference: Goodwin's and Hadley's Greek Grammars, Allinson's Greek Prose Composition, and Oman's History of Greece.

Lectures are given to the higher classes on Greek Literature.

Frequent exercises are assigned to the classes in rendering into Greek English translations from Greek authors.

Liddell and Scott's Greek Lexicon, Kühner's Greek Grammar, Goodwin's Greek Moods and Tenses, Findlay's or Long's or Ginn and Co.'s Classical Atlas, Smith's Greek and Roman Antiquities, and Grote's or Curtius's History of Greece are recommended to students in all the classes.

In this School portions of the following authors are studied :

1. Homer; Herodotus. Three hours a week for two terms.

2. Xenophon (*Memorabilia*); Lucian. Three hours a week for one term.

3. Isocrates and Lucian. Three hours a week for one term.

4. Sophocles, Euripides, Demosthenes, Lysias, and Thucydides. Three hours a week for two terms.

5. Plato and Æschylus. One hour a week for two terms.
For Graduate Courses in Greek, see under head of "Graduate School."

## School of Latin.

PROFESSOR MONTAGUE.

In this School instruction is given in the Latin Language and Literature. In all the courses the study of the Latin Grammar, the writing of exercises, original and selected, and sight reading are required; in course 4, lectures are given upon Pedagogics; and to give practical illustration of the principles and suggestions thus presented, the students are from time to time called to the chair and required to conduct the recitation.

The following works are recommended: Grammars: Harkness's (textbook), Allen and Greenough's, Peters's, Madvig's, Gildersleeve and Lodge's, Bennett's; Lexicons: Harper's, White's English-Latin; Roman Literature: Cruttwell's, Wilkins's; Classical Atlas: Ginn & Co.'s or Kiepert's; Histories: Merivale's, Allen's, Myers's, Gibbon's. In all the courses selections from the Latin authors for private reading and examination are prescribed and the study of Roman Literature is pursued.

COURSES.

1. Ovid, Livy, Horace (*Odes*). Three times a week for one year.

2. Horace (*Satires* and *Epistles*), Cicero (*De Senectute* and *De Amicitia*), Pliny (*Letters*), Plautus (*Captivi*). Three times a week for one term.

3. Cicero (*Letters*), Tacitus (*Germania*), Roman Antiquities. Three hours a week for one term.

4. Tacitus (*Agricola* and *Annals I.*); Seneca, Juvenal, Curtius Rufus; Lucretius; annotations by the students upon the authors read. For practical instructition in this work, see course "Books and Book-making." Three hours a week for one year.

5. Persius; Quintilian; Essays upon Roman Literature. One hour a week for one year.

6. Cicero (*De Finibus*), Social Life of the Romans. One hour a week for one year.

For Graduate Courses in Latin, see under head of "Graduate School."

## School of Romance Languages.

PROFESSOR RAMSEY.
DOCTOR SOTELDO.

### FRENCH LANGUAGE AND LITERATURE.

1. During the first term the class undergoes a thorough drill in pronunciation and becomes familiar with the spoken language. In the study of the grammar especial stress is laid upon acquiring a readiness in applying the principles learned, and to this end a large number of graded exercises are rendered, both orally and in writing, into French. At least once a week a talk on some simple topic is given in French, and the class is required to render portions of it into English. During the last term the students devise exercises based upon portions of the texts read in class. Three hours per week.

Text-books: Muzzarelli's Academic French Course; Stern-Méras, *Étude Progressive de la Langue Française;* Halévy, *L'Abbé Constantin* (Super's edition, with notes and vocabulary); Labiche et Delacour, *Les Petits Oiseaux.*

2. The first term is devoted mainly to a review of the grammar, as presented by a more complete text-book, with abundant exercises in both oral and written translation. During the remainder of the year the syntax is carefully studied, and a systematic effort is made to increase the student's vocabulary. The results attained are at once put to use in the form of brief compositions. At least three hours per month are devoted to French conversation. Three hours per week.

Text-books: Whitney's Practical French Grammar; Gaillard's French Vocabulary; Lacombe, *Petite Histoire du Peuple Français;* Mérimée, *Colomba;* Achard, *Le Clos Pommier;* de Maistre, *Les Prisonniers du Caucase.*

3. The work during this year is intended to give the class a familiarity with the principal events of the literary history of France and of the biography of the leading French writers. Fortier's *Histoire de la Littérature Française* is used during the first term as a syllabus, which is largely supplemented by lectures and by the individual investigations of the students. Incidentally the class is instructed in the broader principles of rhetoric and style. During the second term the students read and summarize some representative works of the Classic period. Three hours per week.

Text-books: Fortier, *Histoire de la Littérature Française;* Corneille, *Le Cid*; Racine, *Athalie;* La Fontaine, *Fables Choisies;* Walter's Classic French Letters.

4. The study of the literature is continued in this year largely by the reading of texts, the students writing criticisms in French of the works that pass under their notice. The period since the French Revolution constitutes the special field of study, and the texts read are therefore selected from representative works of the present century. An effort is made to have several lectures upon literary themes delivered in French by persons not connected with the University. Three hours per week.

Text-books: Taine, *Les Origines de la France Contemporaine;* Hugo, *Ruy Blas;* Balzac, *Eugénie Grandet;* Sandeau, *Mademoiselle de la Seiglière;* Coppée, *On Rend l'Argent.*

For Graduate Courses in French, see under head of "Graduate School."

### SPANISH LANGUAGE AND LITERATURE.

(Requirements for admission: Latin, 1; French, 1.)

1. The study of the language is taken up at the first elements, especial stress being laid upon the acquisition of a correct pronunciation. The grammar is studied as far as the gerund (Part III, chapter 7, of text-book), and the principles are enforced by the translation, both oral and in writing, of copious exercises into Spanish. The class is familiarized from the outset with the spoken language by means of descriptive talks upon simple topics, and later by its use as the medium of instruction. Three hours per week.

Text-books: Ramsey's Text-Book of Modern Spanish; Ramsey's Elementary Spanish Reader.

2. The study of the grammar and syntax is continued through the grammatical text-book, and the principles are applied in the translation

of exercises and the composition of essays and letters. Lectures are given upon the development of the language and the history of the literatures of Spain and Spanish America. Three hours per week.

Text-books: Grammar, as above; Alarcon, *El Sombrero de Tres Picos;* Isaacs, *María;* Valera, *El Comendador Mendoza;* Sarra, *Partir á Tiempo;* Castelar, *La Hermana de la Caridad.*

For Graduate Courses in Spanish, see under head of "Graduate School."

ITALIAN LANGUAGE AND LITERATURE.

(Requirements for admission: Latin, 1 and 2; French, 1.)

1. The instruction during the first year is intended to give the students a good pronunciation, the essentials of grammar, a fair amount of vocabulary, and an ability to read easy prose at sight. After the grammatical rudiments have been mastered and impressed by written and oral translation of exercises, the class passes to the reading of connected texts. Two hours per week.

Text-books: Sauer's Italian Grammar; de Amicis, *Cuore;* Barrili, *Una Notte Bizarra.*

2. Further study of the grammatical construction and the principles of syntax and style. Lectures are given on the development of the language and the history of the literature. Torraca's *Manuale della Letteratura Italiana* is studied as a convenient summary, which is supplemented by the following amount of reading: Gherardi del Testa's *L'Oro e l'Orpello,* the first half of Manzoni's *I Promessi Sposi,* and selections from Pellico's *Le mie Prigioni,* Machiavelli's *Storie Fiorentine,* Ariosto's *Orlando Furioso,* and Tasso's *Gerusalemme Liberata.* Two hours per week.

## School of Germanic Languages.

PROFESSOR SCHOENFELD.

Instruction in this department has, as its primary object, a thorough knowledge of the grammar and familiarity with the literature and history, with such practice in conversation as shall serve as a stimulus in the furtherance of this object.

German grammar is studied during the first three years of the course, with its principles illustrated from the class readings and written exercises.

1. Review of elementary grammar (Otis); accurate training in phonetics and translation into German; beginning of conversation; readings from the best German prosaists and poets. Three hours a week.

2. German syntax; extensive translation into German; selected stories: beginning of classical reading and literature; elements of German history. Three hours a week.

3. Study of the principal difficulties of the language; idioms, synonyms (Sanders's *Hauptschwierigkeiten der deutschen Sprache);* German essays; literature of the second German Blüteperiode; German history; extensive reading from the classics. Three hours a week.

4. Elements of philology; survey of German literature and its relation to the other Germanic peoples; history of the old and the new German Empire; lectures in German; extensive classical reading; introduction into the *Nibelungen Lied* and the *Gudrun Saga.* Three hours a week.

Classes in the Scandinavian languages will be formed if a sufficient number of students shall apply.

For reference: "Higher Education in Russian, Austrian, and Prussian Poland."

## School of Mathematics.

PROFESSOR GORE.

In this School instruction is offered in twelve courses.

1. Solid Geometry; Wells's Revised Geometry. Three hours a week for two months.

2. Algebra, including determinants; Taylor's Algebra. Three hours a week for three months.

3. Plane Trigonometry; Wells's Trigonometry. Three hours a week for two months.

4. Spherical Trigonometry; Wells's Trigonometry. Three hours a week for two months.

5. Analytic Geometry; Nichols's Analytic Geometry. Three hours a week for four months.

6. Theory of Equations; Chapman's Theory of Equations. Three hours a week for two months.

7. Differential and Integral Calculus, Taylor. Three hours a week for five months.

8. Differential Equations; lectures, notes by Professor Gore. Three hours a week for three months.

9. Theory of the Complex Variable; lectures with references to Durège and Forsyth. Two hours a week for one term.

10. Elliptic Functions, Baker. Two hours a week for one term.

In all of the above courses the text is supplemented by lectures and the principles emphasized by proposing for solution a large number of problems taken from the best European and American authorities.

While the disciplinary value of the study of mathematics is never lost sight of, the importance of its practical applications is insisted upon.

OPTIONAL COURSES.

11. Analytical Mechanics. One hour a week for two terms.

12. Theory of Probabilities, with Applications to Least Squares; Lectures, notes by Professor Gore. One hour a week for two terms.

For Graduate Courses in Mathematics, see under head of "Graduate School."

## School of Chemistry.

PROFESSOR MUNROE.

1. General, Inorganic and Organic Chemistry; lectures and recitations. Students are required to work out problems and exercises in the preparation hours preceding lectures. Three hours per week.

Barker's Elementary Chemistry; Remsen's Organic Chemistry.

2. Laboratory Practice. Students must provide themselves in all the laboratory courses with note books, towels, and the necessary equipment for work. Apparatus and material are supplied by the University. Three periods a week.

Cooke's Laboratory Practice.

3. Qualitative Analysis. Three periods a week.

Clowe's Qualitative Analysis.

4. Quantitative Analysis. Three periods a week.

Fresenius's Quantitative Analysis.

## School of Physics.

PROFESSOR HODGKINS.

1. A recitation and lecture course on General Physics, embracing the fundamental principles of Mechanics, Sound, Heat, Light, and Electricity. The lectures will be illustrated by experiments and will be based on Gage's Principles of Physics. Three hours a week.

2. An advanced course on General Physics. This will be a theoretical and mathematical course and will require a thorough acquaintance with the phenomena of Physics. Barker's Physics will be used as the text-book. Three times a week.

3. A course in Laboratory Physics. This course is designed both to familiarize the student with the ordinary methods of exact experimentation and to extend the knowledge of the principles of Physics as gained in course 1. Lectures on physical theories and on laboratory methods will be given from time to time. Topics for study and discussion will be assigned to the whole class, and to different members of the class will be assigned subjects upon which they will prepare special reports. Three times a week.

4. A lecture and laboratory course in Magnetism and Electricity. Foster and Atkinson's edition of Joubert's Electricity and Magnetism. Three times a week.

5. Light. A lecture and laboratory course, based on Preston's Theory of Light. Three times a week.

6. Heat. A lecture and laboratory course, based on Preston's Theory of Heat. Three times a week.

## School of Philosophy.

PROFESSOR STERRETT.

The special studies in this School are pursued in the two upper classes.

1. The Junior Class (three hours a week throughout the year) study Logic the equivalent of one hour a week throughout the year. Jevons-Hill (*Elements of Logic*) is used as a text-book.

2. The equivalent of two hours a week during the first term is given to the study of Psychology, the aim being to make this work a preparation

for an intelligent study of Ethics and Philosophy. A careful study is made of the phenomena of intellect, feeling, and will as organic processes of the man developing into conscious universal relations.

Dewey or Baldwin is used as a hand-book, with lectures, themes, and constant reference to the leading works on Psychology.

In the second term the equivalent of two hours a week is given to (1) the study of one or more of the chief epochs in the history of philosophy; the course of lectures is given with required study of text-book—Schwegler and Weber; (2) the statement and discussion of the fundamental problems of philosophy.

3. The Senior Class spends the first half of the year (three hours a week throughout the year) in the study of the chief ethical theories. The members of the class are required to study the text of Aristotle, Kant, Mill, and Spencer, and to hand in well-prepared abstracts of their systems. The class-room work is devoted to a critical exposition of these and other theories by means of lectures and discussions. This is followed by a constructive theory of ethics. McKenzie's *Manual of Ethics*, Dewey's *Outlines of Ethics*, and Muirhead's *Elements of Ethics* are put into the hands of the students for use.

A course of lectures is also given on the fundamental postulates, concepts, and principles of Christian Ethics.

This is followed by a six weeks' course on the Philosophy of History.

An opportunity is given the students for *Seminary* work in either Ethics or Philosophy (one hour a week, in the afternoon), and for attendance on the course of papers and discussions before *The Society for Philosophical Inquiry*, meeting in the University every Tuesday afternoon, with program for the current year as shown in course of philosophical lectures open to the students, mention of which is made in this Catalogue.

COURSES, ALTERNATE AND ELECTIVE.

4. Experimental Psychology. Lectures, with study of the method, scope, and most general results of Experimental Psychology. First term, one hour a week.

5 (*a*). History of Ancient Philosophy. Second term, three hours a week. Lectures, with study of some of the text, and *Zeller's* History.

5 (*b*). History of Modern Philosophy. Second term, three hours a week, alternating with (5*a*), Lectures, with study of text of several systems and with reference to Falkenburg and Windelband.

6. Pedagogics. Lectures and text-book study of the History and Philosophy of Education. *Painter and Rosenkranz.* Elective. Second term, one hour a week.

7. The Metaphysics of Ethics. Study of Green's *Prolegomena to Ethics.* Second term, one hour a week.

For Graduate Courses in Philosophy, see under head of "Graduate School."

## School of Political Science, Including Politics, Economics, Jurisprudence.

PROFESSOR LODGE.
THE HONORABLE W. L. WILSON.
MAJOR J. W. POWELL.
DOCTOR O. T. MASON.
PROFESSOR L. F. WARD.

### General Statement.

The studies in this School are designed to furnish the learner with an account of the genesis, development, and growth of political institutions. In all the branches pursued the method is comparative. Particular pains are taken to send students to the original sources of information as far as possible. To this end the class are constantly called upon to make use of the unequaled facilities of the Capital City for historical research. The archives of the Department of State are utilized to bring the student into direct contact with the original documents of American history.

### Courses.

#### PROFESSOR LODGE.

1. The Development of the English Constitution; lectures; collateral reading; studies in Gardiner, Freeman, Stubbs, and Boutmy. Two hours a week for three months.

2. The History of French Political Institutions; lectures; studies in Guizot, Taine, and Sir James Stephens. Two hours a week for three months.

3. The Evolution of American Political Ideas; lectures; studies of our history in its sources; collateral reading in the standard American historians and in C. E. Stevens's *Sources of the Constitution*. Two hours a week for three months.

4. Political Economy; text book, Hadley; studies in socialism and communism, coöperation, and other current economic problems. Three hours a week for one year.

5. The History of Political Economy in Europe; lectures; studies in Blanqui. One hour a week for one term.

6. The Economic History of the United States; lectures; studies in Wells, Sumner, and Taussig. One hour a week for one term.

7. The Constitutional Law of the United States; text-books, Cooley and Bryce, with frequent studies in Elliot's Debates, the Federalist, Bancroft's Formation of the Constitution, Marshall, Story, Pomeroy, and Von Holst. Two hours a week for one year.

8. International Law; text-books, Gallaudet and Lawrence; lectures on the History of the Law of Nations; studies in Maine, Wheaton, and Calvo. One hour a week for one year.

9. The Theory of the State; text-books, Histoire de la Science Politique, Janet; History of the Science of Politics, Pollock; The Theory of the State, Bluntschli; studies in Montesquieu, Hobbes, Locke, and Woolsey. Two hours a week for one year.

10. The History of Civilization, a course of lectures on history, considered in its sources, methods of study, its principles of criticism as differently applied to unwritten and written records, and the successive stages of human progress measured along the lines of useful arts and of social institutions. These lectures begin with anthropological studies in primitive society, and are followed by a rapid survey of the "civilizing stream" in its passage from Egypt through Assyria, Judea, Phœnicia, Persia, Greece, Rome, and Latin Christendom, down to the discovery of America. Two hours a week for one year.

THE HONORABLE W. L. WILSON.

11. The History of American Economic Legislation.

MAJOR J. W. POWELL.

12. Culturgeschichte.

DOCTOR O. T. MASON.

13. Origins of Invention.

PROFESSOR L. F. WARD.

14. Sociology.

For Graduate Courses in Political Science, see under head of "Graduate School."

## Books and Bookmaking.

PROFESSOR GORE.

In this course instruction will be given in:

1. The collection and preservation of material preparatory to the writing of a book. Lecture by Professor Mason on "How to Write a Book."
2. The preparation of manuscripts.
3. The illustrating of books. Lecture by Mr. W. J. Hoffman.
4. Printing of books. Lecture by Mr. George H. Judd.
5. Proof-reading, with extensive practice.
6. Book-binding, including lettering and styles of binding. Illustrated lecture by Doctor Fletcher.
7. Cataloguing and classification. Lecture by Dr. T. N. Gill.
8. Bibliography.

Every effort will be made to utilize the exceptional advantages offered by the presence in Washington of specialists in the topics outlined above, and opportunities will be offered for practical work by members of the Faculty engaged in literary work or who require of their students thorough investigation.

The private library of the Professor is well equipped with bibliographic aids and illustrative material.

## School of the Fine Arts.

PROFESSOR PARTRIDGE.

Announcements concerning the course and the lectures in this School will be made at the beginning of the next academic year.

## School of History.

ACTING PROFESSOR SWISHER.

The required work in History extends through the Sophomore year, and embraces a careful survey of the more important facts of Ancient and Mediæval History in their relation of cause and effect. It is designed almost exclusively as a preparation for the fuller election of the two following years, in which it is sought to afford students the training in History necessary to an intelligent discharge of the duties of citizenship, the prosecution of political or professional studies, or the work of investigation and research in the Graduate School. The work will be conducted by means of text-books, lectures, readings, and reports, in all of which it will be sought to familiarize the student with original sources.

COURSES.

1. Ancient History. Three hours for one term.

2. Mediæval History. Three hours for one term.

3. American History during the Colonial and Revolutionary periods. Three hours for one term.

4. American History from the close of the Revolution to the present time. Three hours for one term.

5. English History to the Congress of Vienna. Three hours for one term.

6. Continental History. The Renaissance Movement and the Reformation through the Catholic Reaction. Three hours for one term.

7. The Period of Louis XIV and the antecedents of the French Revolution. Three hours for one term.

8. Europe during the French Revolution and the Napoleonic wars. Three hours for one term.

9. Political History of Continental Europe since the Congress of Berlin. Three hours for one term.

10. English History during the reign of the present Queen. Three hours for one term.

## School of Civil Engineering.

ACTING PROFESSOR FREYHOLD.

1. Descriptive Geometry. Two hours a week.
2. An Elementary Course in Construction. One hour a week.
3. A Course in Land Surveying. Two hours a week.
4. Analytical Mechanics. Three hours a week, one term.
5. A Course in Topographical and Railroad Surveying. One hour a week.
6. Strength of Materials. Two hours a week, one term.
7. Graphic Statics. Two hours a week, one term.
8. Bridge Design, Steel Roofs and Buildings. Four hours a week.
9. Hydraulics. Three hours a week, one term.
10. Construction. Foundations, arches, walls, dams. Two hours a week.

## Time and Terms of Admission.

The session of 1897–'98 will open September 29, 1897.

I. Entrance examinations will be held on Friday and Saturday, June 4 and 5, and on Monday and Tuesday, September 27 and 28, 1897. The following will be the schedule:

| | |
|---|---|
| First day: | 9.00–10.30, English. |
| | 10.30–12.00, Latin. |
| | 12.30– 2.00, Greek; Solid Geometry. |
| | 2.00– 3.30, French. |
| Second day: | 9.00–10.30, German. |
| | 10.30–12.00, Physics; Chemistry. |
| | 12.30– 2.00, Algebra. |
| | 2.00– 3.30, Plane Geometry. |

II. Every applicant is required to submit testimonials of character and scholarship.

III. Candidates for admission to the course leading to the degree of Bachelor of Arts will be examined in English, Greek, Latin, French or German, Algebra, and Plane Geometry.

IV. Candidates for admission to the course leading to the degree of Bachelor of Science will be examined in English, Algebra, Plane Geometry, Solid Geometry, Physics or Chemistry, and in two languages, one of which must be French or German.

V. Candidates for admission in English in 1897 must be able to answer questions upon the elementary principles of practical rhetoric; they must show familiarity with the following works: Shakespeare's *As You Like It*, Defoe's *History of the Plague in London*, Irving's *Tales of a Traveller*, Hawthorne's *Twice Told Tales*, Longfellow's *Evangeline*, and George Eliot's *Silas Marner*. These are to test the pupil's general reading. Of the following books he will be expected to show thorough knowledge as to subject-matter, form, and structure: Shakespeare's *Merchant of Venice*, Burke's *Speech on Conciliation with America*, Scott's *Marmion*, and Macaulay's *Life of Samuel Johnson*.

The examination will be written, of about one hour and a half in length. Account will be taken of spelling, punctuation, paragraphing, mode of expression, and the like.

In 1898 the books upon which the examination will be based are the following—For *general* knowledge: Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I and XXII; *The Sir Roger de Coverley Papers* in *The Spectator*, Goldsmith's *The Vicar of Wakefield*, Coleridge's *Ancient Mariner*, Southey's *Life of Nelson*, Carlyle's *Essay on Burns*, Lowell's *The Vision of Sir Launfal*, and Hawthorne's *The House of the Seven Gables*. For *thorough* knowledge, as to subject-matter and structure: Shakespeare's *Macbeth*, Burke's *Speech on Conciliation with America*, De Quincey's *The Flight of a Tartar Tribe*, and Tennyson's *The Princess*.

VI. Candidates for admission in Greek will be examined in Goodwin's or Hadley's Greek Grammar, Goodwin's Greek Reader or Xenophon's *Anabasis* (first four books), first three books of Homer's *Iliad*, Jones's Greek Prose Composition, and Myers's or Schmitz's History of Greece.

VII. Candidates for admission in Latin will be examined in Latin Grammar, four books of Cæsar's *Commentaries*, six of Cicero's Orations, six books of the *Æneid* of Vergil, Sallust's *Conspiracy of Catiline* (in part), Latin Composition, and Allen's, Myers's, or Pennell's History of Rome.

VIII. Candidates for admission in French will be examined in the elements of Grammar and the ability to read at sight easy prose.

IX. Candidates for admission in German will be examined in the elements of Grammar and the ability to read at sight easy prose.

X. Candidates for admission in Mathematics will be examined in Algebra (through Quadratic Equations) and in Plane Geometry; and in Solid Geometry for the degree of B. S.

XI. Candidates for admission in Physics will be examined in Elementary Physics. Carhart and Chute's Physics, Avery's School Physics, Gage's Introduction to Physical Science, or Hall and Bergen's Text-book of Physics will give suitable preparation.

Both text-book study and laboratory work will be expected.

XII. Candidates for admission in Chemistry will be examined in Elementary Chemistry. Storer and Lindsay's Manual of Chemistry will give suitable preparation.

XIII. Candidates for admission to an advanced class in any School will be examined in all indispensable preliminary studies.

XIV. Candidates may be excused from examination in some or all of the required subjects by presenting certificates from The Columbian Academy, the Washington High School, or from other Schools of good standing. Blank forms of such certificates may be obtained on application to the Dean.

XV. Students wishing to pursue a special course in certain Schools will be admitted to the classes for which they may be found qualified, and every student pursuing such a course, if under the age of twenty-one years, is required to include in the selections not less than three distinct Schools, with at least twelve recitations or lectures a week. The choice of studies embraced in a special course must be made immediately upon the commencement of a term, and no student, without permission of the Faculty, may make a new choice of studies during any single term.

XVI. No student will be permitted to take more than eighteen recitation or laboratory periods a week, except by special permission of the Faculty.

## Degrees.

The degree of Bachelor of Arts or Bachelor of Science is conferred on students who complete the appropriate course of study as outlined below.

Courses of Graduate study leading respectively to the degrees of Master of Arts and of Doctor of Philosophy are described under the head of the "Graduate School" in this Catalogue.

### COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF ARTS.

(The figures refer to the numbers of the courses in the several Schools of the College, as previously described.)

#### FRESHMAN YEAR.

English, 1, 2.
Greek, 1.
Latin, 1.
French, 1; or
German, 1.
Mathematics, 1, 2, 3.

#### SOPHOMORE YEAR.

Greek, 2, 3; or
Latin, 2, 3.
French, 2; or
German, 2.
History, 1, 2.
English, 3, 4, 5.
Chemistry, 1; or
Physics, 1.

#### JUNIOR YEAR.

Greek, 4; or
Latin, 4.
Philosophy, 1, 2.

Elective, 9 hours a week.

#### SENIOR YEAR.

Political Philosophy, 4.
Philosophy, 3.

Elective, 9 hours a week.

### COURSE OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

#### FRESHMAN YEAR.

English, 1, 2.
French or German, 1.
Chemistry, 1.
Mathematics, 1, 2, 3.
Physics, 1.

SOPHOMORE YEAR.

French or German, 2.
Mathematics, 4, 5, 6.
History, 1.
Chemistry, 2.
Physics, 2.

JUNIOR YEAR.

Mathematics, 7, 8.
Chemistry, 3; or
Physics, 3.

Elective, 9 hours a week.

SENIOR YEAR.

Elective, 15 hours a week.

## Examinations.

At the end of each term, examinations of all the classes of all the Schools are held in the studies of that term.

The results of the Term Examinations are combined with those of the daily recitations of the student during the term, in order to ascertain his academic standing at the end of that term. Account is also taken of attendance.

A student who fails to pass a satisfactory examination in any study at the end of a College term must present himself for re-examination in that study, and in default of doing so shall forfeit promotion with his class in that department.

All examinations which occur at the end of a College year are conducted in writing. Examinations for degrees are concluded three weeks before the date of the Annual Commencement, that time may be given to Professors for the inspection of written examination papers, and to students for the preparation of parts to be performed on Commencement Day by the successful candidates to whom public parts on that day may be assigned by the Faculty. In order to graduate, students must obtain at least 75 *per cent.* in the examinations in all of the subjects.

Each candidate for a degree must submit one week before commencement a thesis upon some topic connected with his principal study.

Examinations for prizes are concluded three weeks before the end of each scholastic year.

## Annual Prizes.

Besides the honors and degrees conferred in the regular course, prizes are annually offered as rewards of special excellence in particular branches of study.

The Davis Prizes, for excellence in Elocution, founded by the Hon. Isaac Davis, LL. D., of Massachusetts, consist of two gold medals, annually awarded to the two successful competitors in a public contest. These prizes are awarded by a committee selected by the Faculty for this purpose and are publicly delivered at the Annual Commencement.

The Staughton Prize, for excellence in the Latin Language and Literature, and the Elton Prize, for excellence in the Greek Language and Literature, founded by the Rev. Romeo Elton, D. D., of Exeter, England, consist of two gold medals, annually awarded to the best scholar in each of these languages.

The Ruggles Prizes, for excellence in Mathematics, founded by Professor William Ruggles, LL. D., consist of two gold medals, annually awarded to the two best scholars in Pure and Applied Mathematics.

Professor Munroe offers a gold medal to that student from the Washington High School who shall attain the highest mark in Chemistry among those passing the entrance examinations to the Columbian College.

The Class of '96 James Macbride Sterrett, Jr., Memorial Medal is annually awarded to that member of the Sophomore Physics Class who obtains the highest average in a special examination on a given subject and in the writing of an essay on an assigned topic. Only candidates for degrees are allowed to compete.

## Prizes in 1895-'96.

Staughton Prize, Mary C. Chapin, District of Columbia; H. May Johnson, District of Columbia.

Elton Prize, Elinor Wilson, District of Columbia.

Munroe Prize, Marie McKelden, District of Columbia.

Debater's Prize in the Enosinian Society, H. H. Donnally, Virginia.

Gore Prize in Parliamentary Law, J. S. Johnson, Virginia.

## Annual Commencement.

The Annual Commencement of the College is held on the second Wednesday in June.

Public parts are assigned on Commencement Day to such students only as have passed a satisfactory examination for the Degree of Bachelor of Arts or of Science, except as before indicated, in the case of those who may be contestants for the prize of Elocution.

All the degrees of the College are publicly conferred on Commencement Day.

Prizes for special excellence in any Department are publicly delivered on the same day.

## Public Worship.

Brief devotional exercises, which all students are expected to attend, are held daily in the College Chapel.

## Library Hours.

The College Library is open every day from 9 o'clock a. m. to 1 o'clock p. m., and from 6 to 10 p. m., for study and inquiry, as well as for the distribution of books. A reading-room, provided with the leading reviews, periodicals, and newspapers, is maintained by the Alumni for the use of students and graduates.

The Libraries of Congress and of the various Departments of the Federal Government are accessible to students for research in any special line of studies.

## Literary Society.

The Enosinian Society, a literary association formed by the students of the College, meets weekly for the purpose of improvement in Debate and Composition. Prizes are given to the two students showing the greatest proficiency in Debate and in Parliamentary Law.

## Lectures.

Courses of Lectures in Literature, Art, and Science are organized every year by the authorities of the University. These lectures are open to

all the classes, and to the public, on application being made for a ticket of admission. Lectures on Science, under the auspices of the Scientific Societies of Washington, whether delivered in the Lecture Hall of the United States National Museum or in the Hall of the University, are open to all students of the University.

Mention of Lectures delivered during the present session is made elsewhere in this Catalogue.

## General Orders.

Every student on entering the College is understood by that act to pledge a voluntary acquiescence in the rules and regulations prescribed by the Board of Trustees and Overseers, and by the Faculty acting under the authority of the Board.

A report of the student's standing in all studies will be rendered periodically to parents or guardians.

The daily recitations of the College classes are brought, as far as practicable, into the early portion of the day. The advantages of attendance upon the debates of Congress and upon lectures before various associations are offered to students of the higher classes without detriment to proficiency in their studies.

## College Expenses.

| | |
|---|---|
| 1. Admission Fee (paid but once, on entrance) | $10 00 |
| 2. Tuition for the year in three or more Schools | 100 00 |
| 3. Tuition for the year in two Schools | 70 00 |
| 4. Tuition for the year in one School | 50 00 |
| 5. Laboratory work in Chemistry, 2 and 3 (material) each | 10 00 |
| 6. Final Diploma Fee | 10 00 |

These charges cover all expenses.

Bills are payable semi-annually, in advance.

## Scholarships.

The Kendall Scholarship, founded by the late Hon. Amos Kendall and running for six years, two in the Academy and four in the College, is annually conferred on the best scholar in the Washington High School. Students on this foundation pay semi-annually, in advance, a fee of eigh dollars.

A recent ordinance of the Corporation increases by six the number of scholarships to be distributed annually among the High Schools of Washington, the successful candidates being determined by a competitive examination held at the University about the first of June of each year. Holders of these scholarships pay semi-annually, in advance, a fee of eight dollars.

The Carter Scholarships, founded by Mrs. Mary M. Carter in memory of her husband, Henry Harding Carter, the well-known civil engineer, consist of the income from five thousand dollars. This sum is to pay the tuition of worthy young men who need assistance while preparing for the civil engineering profession.

## Rooms and Board.

Desirable rooms, convenient to the University buildings, are obtainable at $5 to $15 per month, and good board is offered at $15 to $20 per month. A list of eligible boarding-houses will, upon request, be furnished by the Secretary and Treasurer of the University.

It is confidently expected that by the beginning of the next academic year (1897–'8) accommodations may be offered in College dormitories, within easy reach of the University. Should this plan be carried into effect, students of any department who may desire to obtain board and lodging at more reasonable rates, or to come into closer relations with the social life of the College, may, by early application to the Dean, be accommodated at prices ranging from $15 to $20 per month, according to location of rooms. The dormitories will be in charge of the University authorities.

For further information concerning the Columbian College, application may be made to

A. P. MONTAGUE, *Dean*,
*The Columbian College, Washington, D. C.*

## SCHEDULE OF RECITATIONS* FOR THE SESSION OF 1897-'98.

| | Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|---|
| Freshman. | 9.15-10.10 | Mathematics. | | Mathematics. | Latin. | Mathematics. |
| | 10.10-11.05 | Physics. | Greek; Physics. | English. | Greek; Physics. | Latin. |
| | 11.05-12.00 | Chemistry. | | Chemistry. | Chemistry. | French. |
| | 12.15- 1.15 | French. | French. | Latin. | German. | Greek. |
| | 1.15- 2.15 | German. | English. | German. | English. | |
| Sophomore. | 9.15-10.10 | Latin. | English. | Latin. | German. | French. |
| | 10.10-11.05 | Physics (A. B.). | Physics (A. B.). | Mathematics. | Physics (A. B.). | Greek; Physics. |
| | 11.05-12.00 | Chemistry. | Mathematics. | Chemistry. | Chemistry. | Latin. |
| | 12.15- 1.15 | English. | German. | English. | Greek; Physics. | German. |
| | 1.15- 2.15 | Greek; Physics. | French. | French. | History. | Mathematics. |
| | 2.15- 3.15 | History. | | History. | | Spanish. |
| | 3.15- 4.15 | | | Spanish. | Spanish. | |
| Junior. | 9.15-10.10 | German. | Logic. | German. | English Literature. | Political Philosophy. |
| | 10.10-11.05 | Latin. | Political Philosophy. | Latin. | Latin. | German. |
| | 11.05-12.00 | Psychology. | French. | Greek. / Physics (2 hours). | Psychology. | Mathematics. |
| | 12.15- 1.15 | History, Elective. | German. / Physics. | Mathematics. | French. | |
| | 1.15- 2.15 | English Language. | Latin, Elec. / English, Ele. } Physics. | | Psychology, Elective. | Greek; Physics. |
| | 2.15- 3.15 | Mathematics. | English Language. | French. | History, Elective. / English, Elective. | History, Elective. |
| Senior. | 9.15-10.10 | Ethics. | Constitutional Law. | Political Economy. | Ethics. | Latin. |
| | 10.10-11.05 | Political Economy. | Ethics. | Greek; Physics. | Political Economy. | |
| | 11.05-12.00 | Latin. | German. | Theory of the State. | Mathematics, Elect. | German. / Physics (2 hours). |
| | 12.15- 1.15 | Theory of the State. | English Literature; Physics (2 hours). | French. | History, Elective. | English, Elective. |
| | 1.15- 2.15 | Mathematics, Elect. | History, Elective. | English Literature. | French. | History, Elective. |
| | 2.15- 3.15 | History of Civilization. | French. | History of Civilization. | Constitutional Law. | |
| | 3.15- 4.15 | German. | International Law. | Mathematics, Elec. / English, Elective. | | |

* Arrangements for Classes in Italian will be made upon application.

## Students.

### CANDIDATES FOR DEGREES.

| Name. | State. | Address. |
|---|---|---|
| John Howard Adamson | Va | Alexandria, Va. |
| J. Henry Altschu | D. C | 1334 G Street, N. W. |
| J. William Beatty | Kansas | 631 Second Street, N. W. |
| George Magruder Berry | Md. | 720 Twenty-first Street, N. W. |
| Helen Ruth Biddis | Pa. | Eckington, D. C. |
| Florence Lorraine Bingham | D. C | 1233 Massachusetts Ave., N.W. |
| Edmund Kemper Broadus | Va. | 3626 Thirteenth Street, N. W. |
| Bronson C. Buxton | Va. | Falls Church, Va. |
| Elise Bradford | R. I. | 1522 P Street, N. W. |
| George G. Chase | Kansas. | The Cairo. |
| Reed Paige Clark | N. H. | 1424 Eleventh Street, N. W. |
| Thatcher Clark | N. Y. | 1628 Riggs Place, N. W. |
| Henry Clay Coburn, Jr. | D. C. | 2111 G Street, N. W. |
| Paul Cockerille | D. C. | 1425 New York Avenue, N. W. |
| De Witt Clinton Croissant | D. C. | 821 North Carolina Avenue, S. E. |
| E. Kendall Cutter | D. C. | 1522 K Street, N. W. |
| Harry Tennyson Domer | Pa. | 738 Eleventh Street, N. W. |
| Lida Draper | D. C. | The Columbian University. |
| Frank Norton Everett | Mass. | The Concord. |
| Joseph Finckel | D. C | 1319 S Street, N. W. |
| Carrol T. Fugitt | D. C. | 1416 K Street, N. W. |
| G. Emery Green | Mass. | 1123 Seventeenth Street, N. W. |
| George Herbert Guerdrum | Norway. | Anacostia, D. C. |
| Quirof Harlan | Md. | 801 Fourth Street, S. E. |
| Rolvix Harlan | Md. | 1229 Tenth Street, S. E. |
| Mary Squire Hinman | Ohio | 1314 Kenesaw Avenue, N. W. |
| Alphonzo Augustus Hobson | Va. | 711 Rhode Island Avenue, N. W. |
| G. Carroll Hoover | Pa. | 63 R Street, N. W. |
| Frances Mabel Jacobs | D. C. | 1327 Eleventh Street, N. W. |
| Laurance A. Janney | D. C. | 1671 Thirty-first Street, N. W. |
| Joseph Chapman Johnston | Va. | 939 Virginia Avenue, S. W. |
| Fred. Cragin Jones | D. C. | 946 F Street, S. W. |
| Charles B. Keller | N. Y. | 1122 G Street, S. E. |
| Gilbert Walker Kelly | D. C. | 228 A Street, S. E. |

| Name. | State. | Address. |
|---|---|---|
| Mary Isabel Kelly | D. C. | 228 A Street, S. E. |
| Anna Campbell Kelton | Cal. | 1841 R Street, N. W. |
| Eleanor Annie Lamson | D. C. | Anacostia, D. C. |
| Melville Wilmer Lindsey | Va. | Alexandria, Va. |
| William S. Manning | W. Va. | 1511 Rhode Island Avenue, N. W. |
| Ruth McGowan | Mich. | 1443 Staughton Street, N. W. |
| Elsie Madeleine McKelden | D. C. | 724 Fifth Street, N. E. |
| H. J. McKenney | Md. | 216 Fifth Street, N. E. |
| Gertrude E. Metcalf | Maine. | 1631 Marion Street, N. W. |
| William Mitchell | Wis. | 32 B Street, N. E. |
| Frances C. Newlands | Nev. | Chevy Chase, Md. |
| Etheldreda Lord Norris | N. J. | Sligo, Md. |
| W. Dunlop Owens | D. C. | 1203 New Hampshire Ave., N. W. |
| Lillian Pace | Va. | 1208½ N Street, N. W. |
| Elsie Elizabeth Parkinson | Mich. | 806 Ninth Street, N. E. |
| Conrad Magruder Patten | D. C. | 3033 P Street, N. W. |
| Stanton C. Peelle | D. C. | The Concord. |
| Preston Blair Ray | Md. | Forest Glen, Md. |
| G. Irving Raybold | D. C. | 820 North Carolina Avenue, S. E. |
| Forest Eugene Ricketts | Md. | Derwood, Md. |
| Rosalie A. Robinette | Pa. | 301 Maryland Avenue, N. E. |
| Charles Kilburne Robinson | N. J. | 1607 S Street, N. W. |
| Nathaniel E. Robinson, Jr. | D. C. | Brightwood, D. C. |
| Samuel H. Rogers | Va. | 721 Eighth Street, N. W. |
| Grace Isabella Ross | Vt. | 77 L Street, N. W. |
| Georgia Sanderlin | N. C. | 1008 N Street, N. W. |
| Henry Hatch D. Sterrett | D. C. | Springland, D. C. |
| Robert Sterrett | D. C. | Springland, D. C. |
| William D. Sterrett | D. C. | Springland, D. C. |
| Geo. E. T. Stevenson | N. Y. | Good Hope, D. C. |
| Hugh T. Stevenson | N. Y. | Anacostia, D. C. |
| Christopher G. Storm, Jr. | Wis. | 9 K Street, N. E. |
| Mae Moulton Stover | Va. | The Columbian University. |
| Albert Rhett Stuart | S. C. | 1226 Fifteenth Street, N. W. |
| Wilbur W. Underwood | D. C. | 1407 Tenth Street, N. W. |
| Clara Mary Upton | D. C. | 406 Spruce Street, N. W. |
| Jesse H. Wilson, Jr. | D. C. | 2914 P Street, N. W. |

## Special Students.

| Name. | State. | Address. |
|---|---|---|
| Fauntleroy Barnes | D. C. | 600 Twentieth Street, N. W. |
| Edward Abbott Beard | D. C. | 1305 N Street, N. W. |
| Frank Lee Biscoe | D. C. | 813 Twenty-first Street, N. W. |
| Amy Louise Concklin | N. Y. | 1118 New Hampshire Ave., N.W. |
| Horace V. Conly | Pa. | 44 R Street, N. E. |
| Moncena M. Dodge | Maine | 940 New York Avenue, N. W. |
| Margaret Brent Downing | Mo. | Brookland, D. C. |
| Wm. Lowry Farnham | D. C. | 1103 M Street, N. W. |
| Dean Halford | Mass. | 1622 Twenty-second Street, N.W. |
| Jessie May Harwood | Mass. | 410 Second Street, N. E. |
| Charles T. Hatch | Ind. | 1622 Nineteenth Street, N. W. |
| William A. Heilprin | D. C. | 926 B Street, S. W. |
| Charles G. Hoffman | D. C. | 222 E Street, N. W. |
| Katharine Hosmer | D. C. | 1330 L Street, N. W. |
| H. H. McLendon | N. C. | 1008 N Street, N. W. |
| Selma M. Mason | Va. | 1706 F Street, N. W. |
| Nora Michener | Ind. | 1624 Nineteenth Street, N. W. |
| H. Sophie Phillips | Va. | 1425 Q Street, N. W. |
| Francis A. Ruggles | D. C. | 1224 Seventeenth Street, N. W. |
| Edward T. Scully | | 1602 Vermont Avenue, N. W. |
| Ella Lillian Sherman | D. C. | Cleveland Park, D. C. |
| Mary Tasker Turner | Mo. | 2158 Florida Avenue, N. W. |
| Elizabeth Warder | Ohio | 1515 K Street, N. W. |

## Students Pursuing Review Studies.

| | | |
|---|---|---|
| Mary C. Chapin, A. B. | D. C. | 1814 Fourth Street, N. W. |
| H. May Johnson, A. B. | D. C. | 5 Grant Place, N. W. |

# THE CORCORAN SCIENTIFIC SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

J. HOWARD GORE, PH. D.,
Professor of Geodesy.

HOWARD L. HODGKINS, PH. D.,
Professor of Mathematics and Secretary of the Faculty.

LEE D. LODGE, PH. D.,
Professor of Philosophy.

THEODORE N. GILL, PH. D.,
Professor of Zoölogy.

CLEVELAND ABBE, A. M.,
Professor of Meteorology.

HERMANN SCHOENFELD, PH. D.,
Professor of German.

HARRY KING, LL. B.,
Professor of Drawing.

GEORGE P. MERRILL, PH. D.,
Professor of Geology and Mineralogy.

ADOLPHUS W. GREELY,
Professor of Geography.

JOSIAH PIERCE, JR., M. A.,
Professor of Drawing and Applied Geometry.

ANDREW F. CRAVEN, PH. D.,
Professor of Economics.

LOUIS AMATEIS,
Professor of Fine Arts as Applied to Architecture.

EDWARD FARQUHAR, PH. D.,
Professor of History.

FRANK A. WOLFF, PH. D.,
Professor of Physics.

F. LAMSON-SCRIBNER, B. S.,
Professor of Botany.

J. C. HORNBLOWER,
Professor of Architecture.

HANS ZOPKE,
Professor of Mechanical Engineering.

C. F. MARVIN, M. E.,
Associate Professor of Meteorology.

ELMER S. FARWELL, C. E.,
Associate Professor of Mechanical Engineering.

HENRY SIMPSON,
Associate Professor of Architecture.

EDWARD B. POLLARD, PH. D.,
Professor of English.

FELIX FREYHOLD, C. E.,
Professor of Civil Engineering.

MARATHON M. RAMSEY, A. M.,
Professor of Romance Languages.

HENRY R. PYNE, A. M.,
Assistant Professor of Latin and Greek.

HERBERT L. RICE, M. S.,
Acting Professor of Astronomy.

THEODORE FRIEBUS, JR.,
Acting Professor of Fine Arts as Applied to Architecture.

**Instructors and Assistants.**

PETER FIREMAN, PH. D.,
Instructor in Chemistry.

EMIL H. MEYER,
Instructor in Free-hand Drawing.

T. W. STANTON, A. M.,
Instructor in Paleontology and Stratigraphical Geology.

CLEVELAND ABBE, JR., A. B.,
Instructor in Physiography.

HARRY T. NEWCOMB, LL. M.,
Instructor in Statistics.

CABELL WHITEHEAD, B. M.,
Assistant in Assaying.

ERNEST L. THURSTON, C. E.,
Assistant in Drawing.

EDWARD A. MUIR,
Assistant in Machine Drawing.

JOSEPH S. MILLS, A. M.,
Assistant in Qualitative Analysis.

POWHATAN W. ROBERTSON,
Assistant in Accounting.

WILLIAM P. HAY, A. M.,
Assistant in Zoölogy.

CHARLES T. SEMPERS, A. M.,
Assistant in English.

H. GRANT HODGKINS, A. B.,
Assistant in Mathematics.

CHARLES E. McNABB, LL. M.,
Assistant in Business Law.

MINOTT E. PORTER, B. S.,
Assistant in Geography.

A. KLAKRING,
Assistant in Topographic Drawing.

THOMAS A. WILLIAMS, M. A.,
Assistant in Botany.

THOMAS J. D. FULLER, B. S.,
Assistant in Architecture.

ALFREDO V. GANA, B. S.,
Assistant in Fine Arts as Applied to Architecture.

C. LE ROY PARKER, M. S.,
Assistant in General Chemistry.

**Lecturers.**

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

H. CARRINGTON BOLTON, PH. D.,
Lecturer on History of Chemistry.

THOMAS M. CHATARD, PH. D.,
Lecturer on Chemical Engineering.

WORTHINGTON C. FORD,
Lecturer on Statistics.

GLENN BROWN,
Lecturer on Sanitary Engineering.

HON. JAMES H. ECKELS,
Lecturer on Finance.

CARROLL D. WRIGHT, LL. D.,
Lecturer on Social Statistics.

LESTER F. WARD, A. M.,
Lecturer on Sociology.

## Standing Committees of the Faculty.

*Committee on Advanced Standing.*
Professors MUNROE, HODGKINS, and LODGE.

*Committee on Registration of Students.*
Professors MUNROE and HODGKINS.

*Committee on Library.*
Professors FARQUHAR, GORE, and RAMSEY.

*Committee on Examination Schedule.*
Professors WOLFF, LODGE, and HODGKINS.

*Committee on Catalogue.*
Professors MUNROE and HODGKINS.

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The School of Science established by the Trustees and Overseers of The Columbian University as a part of their University system of education is called by the name of W. W. CORCORAN in grateful recollection of his many benefactions to the University.

The exercises of the School begin Wednesday, September 29, 1897, and are held in the University Building (southeast corner of Fifteenth and H streets N. W.), which has been constructed with special reference to the wants of the School.

Properly qualified persons of either sex are admitted as students in the Full Courses of study leading to the degree of Bachelor of Science, as described below, or they may take special Courses in any of the Departments.

Candidates for admission to the First Year Course should be prepared in English Grammar, Rhetoric, French Grammar, American History, Algebra through Quadratic Equations, Plane Geometry, Elementary Chemistry, Elementary Physics, and the elements of Free-hand and Mechanical Drawing.

The following Courses of Study leading to the degree of Bachelor of Science are arranged to be completed in four years, but students otherwise engaged are granted a longer period in which to fulfill the requirements:

## COURSES OF STUDY LEADING TO THE DEGREE OF BACHELOR OF SCIENCE.

### FIRST YEAR.*

(Common to all Courses.)

†(3) Chemistry, 1, 6.
General Chemistry; History of Chemistry.

(2) Drawing, 1.
Mechanical and Geometrical Drawing.

(3) English, 1, 3.
Rhetoric; English Literature.

(1) Fine Arts, 1.
Free-hand Drawing.

(2) Romance Languages, 1.
French.

(5) Mathematics, 1, 2.
Algebra; Geometry.

## COURSE I—GENERAL.

### SECOND YEAR.

(2) German, 1.

(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.

Elective, eight hours a week.

(½) Mineralogy, 1.
Descriptive Mineralogy.

(3) Physics, 1.
General Physics.

### THIRD YEAR.

(2) Geology, 1.
Systematic Geology.

Elective, thirteen hours a week.

(2) German, 2.

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*Students in Course XI will take Course 2 in Fine Arts (Architectural Drawing) in addition to the above.

†The numbers in parentheses give the number of hours or periods per week; the numbers following the subjects refer to the special topics in the various Departments of the Corcoran Scientific School.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.
Elective, thirteen hours a week.

## COURSE II—IN CIVIL ENGINEERING.

SECOND YEAR.

(2) Applied Mathematics, 1.
Descriptive Geometry.
(2) Drawing, 2, 3.
Topographic.
(4) Engineering, 1, 8.
Surveying and Building Construction.
(1) Fine Arts, 2.
Architectural Drawing.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(3) Applied Mathematics, 3, 6.
Mechanics and Graphical Statics.
(1) Astronomy, 2.
Practical.
(1) Fine Arts, 3.
Architectural Drawing.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(4) Engineering, 2, 3, 4.
(2) Mathematics, 5.
Calculus.

FOURTH YEAR.

(4) Applied Mathematics, 4, 5.
Hydrodynamics; Strength of Materials.
(2) Astronomy, 1.
General Astronomy.
(1) Chemistry, 13.
(4) Engineering, 6, 8, 9, 10, 11.
Structures and Materials of Engineering.
(1) Geodesy (1 term).
(1) Mathematics, 7.
Least Squares.
(2) Philosophy, 3.
Logic.

## COURSE III—IN ELECTRICAL ENGINEERING.

SECOND YEAR.

(2) Applied Mathematics, 1.
Descriptive Geometry.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(6) Mechanical Engineering, 4, 10.
Machine Drawing and Machine Problems.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(6) Physics, 1, 9.
General Physics; Physical Laboratory.

THIRD YEAR.

(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(4) Mechanical Engineering, 5, 8.
Advanced Drawing.
(7) Physics, 2, 3, 10, 13.
Electricity; Laboratory.

FOURTH YEAR.

(5) Applied Mathematics, 3, 4, 5.
Mechanics and Hydrodynamics, Strength of Materials.
(2) Astronomy, 1.
General Astronomy.
(1) Chemistry, 13.
Metallurgy of Iron.
(2) Philosophy, 3.
Logic.
(5½) Physics, 4, 5, 11.
Theory and Application of Electricity; Thermodynamics; Advanced Laboratory.

## COURSE IV—IN MECHANICAL ENGINEERING.

SECOND YEAR.

(2) Applied Mathematics, 1.
Descriptive Geometry.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(6) Mechanical Engineering, 2, 10.
Machine Drawing; Machine Problems.
(½) Mineralogy, 1.
Descriptive.
(3) Physics, 1.
General Physics.
(3) Physical Laboratory.

THIRD YEAR.

(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(7) Mechanical Engineering, 3, 11.
Machine Drawing.

FOURTH YEAR.

(5) Applied Mathematics, 3, 4, 5.
Mechanics and Hydrodynamics, Strength of Materials.
(2) Astronomy, 1.
General Astronomy.
(1) Chemistry, 13.
Metallurgy of Iron.
(12) Mechanical Engineering, 6, 7, 8, 9.
Elements of Machines; Hoisting Machinery; Designing.
(2) Philosophy, 3.
Logic.

## COURSE V—IN CHEMISTRY (A).

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mechanical Engineering, 1.
Machine Drawing.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(12) Chemistry, 2.
Qualitative Analysis.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.

FOURTH YEAR.

(16) Chemistry, 3, 5, 7, 13.
Quantitative Analysis; Assaying; Organic Chemistry; Metallurgy of Steel.
(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.

## COURSE VI—IN CHEMISTRY (B).

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(10) Chemistry, 2.
Qualitative Analysis.
(2) Mathematics, 5.
Calculus.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(3) Physics, 2, 3.
Electricity.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(13) Chemistry, 3, 7, 13.
Quantitative Analysis; Organic Chemistry; Metallurgy of Steel.
(2) Mathematics, 6, 7.
Differentials and Least Squares.
(2) Philosophy, 3.
Logic.

## COURSE VII—IN MATHEMATICS.

SECOND YEAR.

(2) Applied Mathematics, 1.
Descriptive Geometry.
(2) Civil Engineering, 1.
Surveying.
(2) Drawing, 2.
Topographical Drawing.
(2) Romance Languages, 2.
French.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(2) Applied Mathematics, 3.
Analytical Mechanics.
(2) Romance Languages, 3.
French.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) History, 1.
American and English.
(4) Mathematics, 5, 8, 9, 10.
Calculus; Determinants; Quaternions; Analytic Geometry of Three Dimensions.
(3) Physics, 2, 3.
Electricity.

FOURTH YEAR.

(3) Applied Mathematics, 4, 5.
(5) Astronomy, 1, 2, 3.
General and Mathematical Astronomy.
(½) Geodesy, 1.
(2) German, 2.
(4) Mathematics, 6, 7, 11, 12.
Differential Equations; Least Squares; Theory of Equations; History of Mathematics.
(2) Philosophy, 3.
Logic.
(½) Physics, 4.
Mathematical Theory of Electricity.

## COURSE VIII—IN METEOROLOGY.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory, General Principles.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(2) Meteorology, 1.
Observational.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(2) Applied Mathematics, 3.
Analytical and Applied Mechanics.
(1) Astronomy, 2.
Practical.
(2) Botany, 1.
Systematic.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(2) Meteorology, 2.
Climatology.
(3) Physics, 9.
Laboratory.

FOURTH YEAR.

(1) Applied Mathematics, 4.
Hydrodynamics.
(2) Astronomy, 1.
General and Spherical Astronomy.
(1) Geodesy.
Projections.
(2) Mathematics, 6, 7.
Differential Equations; Least Squares.
(2) Meteorology, 3.
Special Topics.
(2) Philosophy, 3.
Logic.
(3) Physics, 10.
Laboratory.

## COURSE IX—IN GEOGRAPHY.

SECOND YEAR.

(2) Applied Mathematics, 1.
Descriptive Geometry.
(5) Chemistry, 10.
Laboratory; General Principles.
(2) Drawing, 2.
Topographic.
(2) German, 1.
(2) Geography, 1.
Physical.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(1) Astronomy, 2.
Practical.
(2) Botany, 1.
Systematic.
(4) Engineering, 2, 3, 5.
Surveying.
(2) Geology, 1.
Systematic Geology.
(2) Geography, 2.
Economic.
(2) German, 2.
(2) Mathematics, 5.
Calculus.
(2) Physics, 2, 6.
Electricity.

FOURTH YEAR.

(1) Applied Mathematics, 4.
Hydrodynamics and Hydraulics.
(2) Astronomy, 1.
General Astronomy.
(2) Philosophy, 3.
Logic.
(1) Geodesy.
(2) Mathematics, 6, 7.
Differential Equations and Least Squares.
(2) Meteorology, 2.
Climatology.

Elective, seven hours per week.

## COURSE X—IN GEOLOGY AND MINERALOGY.

SECOND YEAR.

(2) Botany, 1.
Structural and Systematic.
(2) Civil Engineering, 2.
Topographical Surveying.
(2) German.
(3) Mathematics, 3, 4.
Trigonometry, Analytic Geometry.
(3) Mineralogy, 1, 2.
Descriptive and Determinative.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(10) Chemistry, 2.
Qualitative Analysis.
(2) Geology, 1.
Systematic Geology.
(2) German.
(2) Mineralogy.
Determinative and Crystallographic.
(2) Zoölogy, 1, 2.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(2) Drawing, 2.
Topographical Drawing.
(2) Economics, 7.
(2) Geology, 2.
Applied Geology.
(1) Meteorology, 2.
General Climatology.
(2) Philosophy, 3.
Logic.
(1) Meteorology, 4.
Physiography.
(2) Paleobotany.
(2) Paleozoölogy.
(2) Special Lectures on Rock-weathering and Sedimentation, Field Methods, etc.

## COURSE XI—IN ARCHITECTURE.

SECOND YEAR.

(2) Applied Mathematics, 2.
Descriptive Geometry.
(3) Architecture, 1, 4.
History; Planning.
(2) Engineering, 1, 8.
Use of Instruments; Construction.
(1) Fine Arts, 3.
Architectural Drawing.
(2) German, 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(1) Mechanical Engineering, 1.
Machine Drawing.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.

THIRD YEAR.

(3) Applied Mathematics, 2, 6, 7.
Stereotomy; Graphic Statics; Mechanics.
(4) Architecture, 2, 5, 7, 10.
History; Planning; Practice; Inspection.
(2) Economics, 1.
Accounting.
(2) Engineering, 9.
Construction.
(2) Fine Arts, 4.
Composition.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Mathematics, 5.
Calculus.

FOURTH YEAR.

(12) Architecture, 3, 6, 8, 9, 10.
History; Planning; Practice; Inspection; Heating and Ventilation.
(2) Astronomy, 1.
General Astronomy.
(1) Chemistry, 13.
(2) Economics, 2.
Business Law.
(1) Engineering, 10.
(2) Philosophy, 3.
Logic.

## COURSE XII—IN ECONOMICS.

SECOND YEAR.

(4) Economics, 1, 2.
Accounting and Business Law.
(2) Geography, 1.
(2) German, 1.
(2) History 1.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.
(2) Romance Language, 4.
French.

THIRD YEAR.

(6) Economics, 3, 4, 5.
Finance; Politics and Administration; Economic Development.
(2) Geography, 2.
(2) Geology, 1.
(2) German, 2.
(2) History, 2.
(2) Philosophy 1.
(2) Zoölogy, 1, 2.

FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(2) Botany, 1.
(5) Chemistry, 10.
(6) Economics, 6, 7, 8.
Statistics; Political Economy; Sociology.
(2) German, 3.
(2) History, 3.
(2) Philosophy, 3.
Logic.

## COURSE XIII—IN LANGUAGE AND LITERATURE.

### SECOND YEAR.

(2) English, 2, 4.
(2) German, 1.
(2) Greek, 3; or Latin, 3.
(3) Mathematics, 3, 4.
Trigonometry; Analytic Geometry.
(½) Mineralogy, 1.
Descriptive Mineralogy.
(3) Physics, 1.
General Physics.
(4) Romance Languages, 2, 5.
French; Spanish.

### THIRD YEAR.

(3) English, 5, 6, 7.
(2) Geology, 1.
Systematic Geology.
(2) German, 2.
(2) Greek, 4; or Latin, 4.
(2) History, 1.
(6) Romance Languages, 3, 6, 7.
French; Spanish; Italian.

### FOURTH YEAR.

(2) Astronomy, 1.
General Astronomy.
(1) English, 1, 3.
(2) German, 3.
(4) History, 2, 3.
(2) Latin, 5; or Romance Languages, 8.
(2) Latin, 6; or Geography, 1.
(2) Philosophy, 3.
Logic.
(2) Romance Languages, 4.
French.

## SCHEDULE OF LECTURES AND RECITATIONS, 1896-'97.

| HOURS. P. M. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 6 to 7. | Geology.<br>Greek, II.<br>Rhetoric.<br>Trigonometry.<br>Machine Construction and Mechanical Engineering. | American History.<br>Architectural Drawing, I.<br>Botany, II.<br>Elementary Electricity.<br>French, II.<br>Greek, I.<br>Least Squares.<br>Logic.<br>Machine Drawing, I.<br>Zoölogy. | Modern History.<br>Descriptive Geometry.<br>Elementary Electricity.<br>English Literature.<br>German, III.<br>Machine Construction for Mechanical Engineering.<br>Greek, III. | Astronomy.<br>Chemistry.<br>Elementary Electricity.<br>Free-hand Drawing, III.<br>Machine Elements.<br>Trigonometry.<br>Zoölogy.<br>Latin, V.<br>American History. | Geology.<br>German, III.<br>Greek, I.<br>Machine Construction for Electrical Engineering and Mechanical Engineering.<br>Rhetoric.<br>Trigonometry. | Geography.<br>Latin, IV.<br>Machine Drawing, I.<br>Mechanical Drawing.<br>Meteorology.<br>Properties of Material. |
| 7 to 8. | Business Law.<br>Calculus.<br>Chemistry.<br>English Poetry.<br>Machine Elements.<br>Mineralogy.<br>Modern History.<br>Spanish, III.<br>Technical Electricity.<br>Latin, V. | Accounting.<br>Advanced Electricity.<br>American Literature.<br>Architectural Drawing, II.<br>Botany, I.<br>Differential Equations.<br>French, I.<br>Latin, IV.<br>Machine Drawing, I.<br>Stone Cutting.<br>Surveying. | Chemistry.<br>Civics.<br>English Essayists.<br>German, II.<br>Latin, I.<br>Moral Philosophy.<br>Physics.<br>Strength of Materials.<br>Portuguese. | Botany, I.<br>Business Law.<br>Calculus.<br>Free-hand Drawing, IV.<br>Greek, II.<br>Italian, I.<br>Logic.<br>Mechanical Drawing.<br>Physics.<br>Psychology, II.<br>Machine Elements.<br>Construction. | Anglo-Saxon.<br>Accounting.<br>Geometry.<br>Geometry (Plane).<br>German, II.<br>Mineralogy.<br>Moral Philosophy.<br>Spanish, III.<br>Strength of Materials. | Civics.<br>Free-hand Drawing, I.<br>Italian, I.<br>Machine Drawing, II and I.<br>Machine Construction for Mechanical Engineering. |

## SCHEDULE OF LECTURES AND RECITATIONS, 1896-'97.

| HOURS. P.M. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 8 to 9. | Algebra.<br>Algebra (Prep.).<br>Mechanics.<br>Metallurgy of Iron.<br>Physics.<br>Politics.<br>Spanish, II.<br>Chaucer, &c. | Architectural Drawing, III.<br>Astronomy.<br>English Language.<br>Free-hand Drawing, II.<br>Geometry.<br>Geometry, Plane.<br>Machine Construction for Mechanical Engineering.<br>Political Economy.<br>Psychology, I.<br>Topographical Drawing.<br>Topographical Surveying.<br>Botany, II. | German, I.<br>Machine Construction for Mechanical Engineering.<br>Mechanics.<br>Psychology, II.<br>Shakespeare.<br>Technical Electricity.<br>Italian, II. | Advanced Electricity.<br>Architectural Drawing, IV.<br>Botany, II.<br>Differential Equations.<br>French, I.<br>Geography.<br>Machine Problems.<br>Politics.<br>Surveying.<br>Mediæval History. | Algebra.<br>Algebra (Prep.).<br>German, I.<br>Machine Construction for Electrical Engineering and Mechanical Engineering.<br>Mechanics.<br>Political Economy.<br>Psychology, I.<br>Spanish, II. | Italian, II.<br>Latin, I. |
| 9 to 10. | Geometry (Plane).<br>Construction.<br>Descriptive Geometry.<br>Economic Development.<br>Machine Construction for Electrical Engineering and Mechanical Engineering.<br>Spanish, I. | Algebra.<br>Algebra (Prep.).<br>French, III.<br>Practical Astronomy.<br>Public Finance.<br>Strength of Materials.<br>Topographical Drawing<br>Machine Drawing, II. | Building Construction.<br>French, III.<br>Machine Drawing, II.<br>Properties of Materials. | Economic Development.<br>French, II.<br>Least Squares.<br>Topographical Surveying.<br>Machine Problems. | Building Construction.<br>Inventional Geometry.<br>Machine Construction for Mechanical Engineering.<br>Public Finance.<br>Spanish, I. | Portuguese. |

The hours for Architecture will be arranged by Professor of Architecture.
"Chemistry, 10," a laboratory course, Tuesday, from 5 to 10 p. m.
The Laboratories (Botanical, Chemical, Geological, Mineralogical, and Physical) and Drawing-rooms are open every evening.
The full course in Assaying occupies three evenings a week for three months.

## DEPARTMENTS OF INSTRUCTION.

### Anthropology.

DR. MASON, Lecturer.

(See under head of "Graduate School.")

### Applied Mathematics.

(See Department of Engineering.)

### Architecture.

PROFESSOR HORNBLOWER, Head of Department.
MR. SIMPSON, Associate Professor of Architecture.
MR. BROWN, Lecturer on Sanitary Engineering.
MR. FULLER, Assistant in Architecture.

1. History of Architecture, I, one hour.*
2. History of Architecture, II, one hour.
3. History of Architecture, III, one hour.
4. Original Planning and Design (second year).
5. Original Planning and Design (third year).
6. Original Planning and Design (fourth year).
7. Heating and Ventilation, one hour, one term.
8. Sanitary Engineering for Architects, one hour, one term.
9. Inspection of buildings erected or in course of erection.

### Astronomy.

ACTING PROFESSOR RICE, Head of Department.

1. General Descriptive Astronomy. Two hours. Young's General Astronomy, with occasional Lectures.

Arrangements have been made for occasional visits to the New U. S.

* Unless otherwise stated, hours per week throughout the year.

Naval Observatory, so that students may be familiarized with the use of large telescopes.

2. Practical Astronomy, one hour.

3. Mathematical and Theoretical Astronomy, two hours.

Theory is taught mainly by Lectures, supplemented by the solution of problems and practical computations.

## Botany.

PROFESSOR SCRIBNER, Head of Department.
MR. WILLIAMS, Assistant.

1. Structural and Systematic Botany.

The year will be devoted to general organography and morphology of flowering plants and the higher cryptogams, with brief outline review of the remaining groups. *Field excursions* will be given whenever practicable, and the student will be expected to become familiar with the determination of ordinary flowering plants and vascular cryptogams, and to be able to recognize the principal groups at sight. The student will also be instructed as to the proper manner of collecting and preparing plants for the herbarium and directed to begin the preparation of a local herbarium. Two hours.

Text-books: Bastin's College Botany; Gray's Manual of Botany of the Northern United States.

Reference books: Gray's Structural Botany; Knowlton, Directions for Collecting Recent and Fossil Plants.

2. Histological and Physiological Botany.

The greater part of the year will be devoted to lectures and laboratory work in histology and physiology. The cutting of sections and staining and mounting of botanical objects will be described and illustrated.

*The field excursions* will be continued and the study of the more difficult orders or genera of flowering plants, such as Compositæ, Graminæ, and Carex, will be taken up. Attention will also be given to the lower groups, as mosses, algæ, and fungi, and the important characters reviewed.

Each student will be required to collect, prepare, and mount an herbarium of one hundred species of local plants, which must be properly identified and classified. Two hours.

Reference books: Goodale's Physiological Botany; Bennett and Murray, Cryptogamic Botany; Bessey's College Botany; Westermaier-Schneider, A Compendium of General Botany.

3. Special Course for Teachers in the Public Schools.

This course will include lectures on various botanical subjects of popular as well as scientific interest, with suggestions as to how such work can be best presented to the pupils of the public schools. Courses of reading will be outlined and simple lines of experimentation given, with hints on methods of working them out in the school-room. One hour.

## Chemistry.

PROFESSOR MUNROE, Head of Department.
DR. BOLTON, Lecturer on the History and Philosophy of Chemistry.
DR. CHATARD, Lecturer on Chemical Engineering.
MR. WHITEHEAD, Assistant in Assaying.
DR. FIREMAN, Instructor in Chemistry.
MR. MILLS, Assistant in Qualitative Analysis.
MR. PARKER, Assistant in General Chemistry.

1. General Chemistry, a series of illustrated lectures, accompanied by recitations and exercises, on theoretical, inorganic, organic, and technical chemistry. Three hours.

Text-books: Barker's, Remsen's, and Bloxam's Chemistries.

2. Chemical practice and Qualitative Analysis, a laboratory course in the manufacture of chemical substances, the study of their properties and reactions, and of the means employed for their detection and identification. Twelve hours.

Text-books: Clowe's and Fresenius's Qualitative Analysis.

3. Quantitative Analysis, a laboratory course in the quantitative estimation of the constituents of a specially selected and typical set of chemical substances, which are particularly adapted for teaching the student the aims and methods of quantitative chemical analysis and for imparting facility in manipulation. Fifteen hours.

Text-books: Fresenius's and Thorpe's Quantitative Analysis.

4. Technical Analysis and Industrial Processes, a lecture and laboratory course in which the elements of chemical engineering will be taught, and special attention will be given to rapid commercial methods of analysis. Twelve hours.

Text-books: Hempel's Gas Analysis, Phillips's Engineering Chemistry, Wagner's Chemical Technology.

5. Assaying and Metallurgy of the Precious Metals, carried on by the methods used by the Government assayers, the laboratory being fitted up on the plan of that of the United States Mint. Twelve hours a week for three months.

Text-books: Brown's Manual of Assaying, Rickett's Assaying.

6. History and Philosophy of Chemistry, an illustrated lecture course offered gratuitously to all students in the Department and given at irregular intervals.

7. Chemistry of the Carbon Compounds, a laboratory course in the preparation and study of the properties of a characteristic series of organic compounds. Twelve hours.

Text-book: Cohen's Practical Organic Chemistry.

8. Modern Methods of Iron and Steel Analysis, a laboratory course for which a large amount of valuable material has been accumulated. For checking the work, samples which have been analyzed by some of our most eminent specialists are available. Fifteen hours.

Text-book: Blair's Chemical Analysis of Iron.

9. Chemistry of Explosive Substances, a laboratory and field-work course in the preparation and in the study of the properties and methods of analysis of explosive bodies. Fifteen hours.

Text-book: Munroe's Chemistry of Explosives.

10. Experimental Chemistry, a laboratory course for the study of the principles of chemistry and the chemical properties of bodies. Five hours.

Text-book: Cooke's Laboratory Practice.

11. Advanced course in Organic Chemistry, Bernthsen.

12. Lectures on the Principles of Analysis.

13. Metallurgy of Iron and Steel, a course of lectures and readings. One hour.

Work completed in this Department is accepted as the equivalent of similar work required in the Columbian Medical School.

Special attention is paid in all courses to the methods of making notes. Students are given practice in making abstracts. All are required to consult the current periodicals and works of reference. Advanced students will prepare a bibliography on some special topic.

## Drawing.

PROFESSOR KING, Head of Department and Lecturer on Mechanical Drawing.
MR. THURSTON, Assistant in Mechanical Drawing.
MR. KLAKRING, Assistant in Topographic Drawing.

This Department has been organized for the special instruction in training of superior draughtsmen.

The course of instruction, in conjunction with those of the other departments of the School, will include all branches of drawing practiced in the departments of the Government, special attention being given to the technical character of Patent Office drawings as required by the rules of that office; to map-making and to lettering, and will consist in the main of practical demonstrations on the blackboard and on the individual drawing-board of the student.

1. Mechanical Drawing.
2. Topographic Drawing.
3. Topographic Drawing as Applied in Architecture.
4. Lettering as Applied to Topographic and Mechanical Drawings.

Each of these courses will occupy two hours a week and will be supplemented by practice.

## Economics.

PROFESSOR CRAVEN, Head of Department.
DR. WRIGHT, Lecturer on Statistics.
MR. WARD, Lecturer on Sociology.
MR. FORD, Lecturer on Statistics and Finance.
MR. ECKELS, Lecturer on National Banking.
MR. ROBERTSON, Instructor in Accounting.
MR. McNABB, Instructor in Business Law.
MR. NEWCOMB, Instructor in Statistics.

### I.—FINANCE.

1. Advanced Accounting and Auditing.
   First Year: Private, Individual, and Corporation Business. Two hours.
   Second Year: Public, Official, State, and Municipal Business. Two hours.

2. Business Law.

First Year: Practical Business, Commercial and Banking Law:

I.—Business Law in general:
Principles on which it rests.

II.—The Law of Contracts:

*a.* Agency, Partnership, Corporations, Real Estate, Personal Property, etc.

*b.* Commercial Paper:
Rights and Duties of Parties to Bills, Notes, Drafts, and Checks.

III.—Descent and Distribution of Property:
Duties of Executors, Administrators, Trustees, Guardians, etc.

IV.—Business Forms and Practice. Two hours.

Second Year: Financial, Industrial, and Commercial Legislation of the United States. Two hours.

3. THE HISTORY AND SCIENCE OF—

(1) PRIVATE FINANCE: Barter, Exchange, Money, Coinage, Credit and Banking. Two hours, 1897–'8.

(2) PUBLIC FINANCE: In ancient, mediæval, and modern times. A comparison of the present systems of Germany, France, England, and the United States. Two hours, 1898–'9.

II.—POLITICS AND ADMINISTRATION.

4. I.—Civil Government in the United States. Two hours, 1897–'98.
II.—Theories and Forms of Government. Two hours, 1898–'99.

III.—ECONOMIC DEVELOPMENT.

5. I.—The History of Economic Growth among Ancient, Mediæval, and Modern Peoples, down to A. D. 1500. Two hours, 1897–'98.

II.—Modern Industrial and Commercial Changes since A. D. 1500. Two hours, 1898–'99.

STATISTICS.

6. I.—Comparative: A Study of the Numerical Relations of Society. Two hours, 1897–'98.

   II.—Railway Transportation: History and Development of Railways. Theories of Rates, Combinations, State Ownership or Control. Two hours, 1898–'99.

POLITICAL ECONOMY.

7. I.—An Historical Introduction to the Study of Political Economy. Two hours, 1897–'98.

   II.—The Principles of Economics. Two hours, 1898–'99.

SOCIOLOGY.

8. I.—The Principles of Sociology. Two hours, 1898–'99.

   II.—A Study of Individualism, Socialism, and of the Practical Social Problems of State and Municipal Administration in Respect to Sanitation, Charities, Crime, etc. Two hours, 1897–'98.

## Engineering and Applied Mathematics.

PROFESSOR FREYHOLD, Head of Department.
———, Assistant in Civil Engineering.

APPLIED MATHEMATICS.

1. Descriptive Geometry, 2 hours, and Constructive Exercises.
2. Stereotomy, 1 hour, and Exercises. References: Warren, Adhémar.
3. Analytical and Applied Mechanics, 2 hours.
4. Hydrodynamics, Hydraulics, and Pneumatics, 1 hour.
5. Strength of Materials and Theory of Elasticity, 2 hours.
6. Graphical Statics, 1 hour, and Designing Exercises.
7. Mechanics of Construction for Architects, 1 hour.

CIVIL ENGINEERING.

1. Land Surveying, with theory and use of Instruments, 2 hours; Practical exercises and Field-work in the Spring.

2. Topographical Surveying, 2 hours, with Field Practice.

3. Railroad and Highway Engineering and Hydraulic Engineering (Canals, Rivers, and Harbors, Irrigation and Drainage), 1 hour, and Constructive Exercises.

4. Engineering Field-work and Railroad Surveying, 2 hours.

5. Hydrographic Surveying and Exercises, 1 hour, 1 term.

6. Masonry, Wooden, and Steel Structures, 1 hour, and Constructive Exercises.

7. Water Supply, Sewerage, and Sanitary Engineering, 1 hour.

BUILDING CONSTRUCTION.

8. Building Construction, 2 hours, and Constructive Exercises.

9. Building Construction, Specifications, and Working Drawings, 2 hours, and Constructive Exercises.

10. Modern Tall Buildings, and the use of iron in buildings, 1 hour.

11. Construction of Plants and Buildings, for Mechanical and Electrical Engineers, 1 hour, and Constructive Exercises.

Constructive Exercises are carried on largely outside of the regular recitation hours.

## English.

PROFESSOR POLLARD, Head of Department.
MR. SEMPERS, Assistant.

1. Practical Rhetoric. Text-book for reference: Genung. Frequent exercises in composition and criticism. Two hours a week.

2. History and Grammar of the English Language. Text-book: Lounsbury. One hour.

3. English Literature. Its history, with the study of representative authors. Text-book: Pancoast's Representative English Literature. One hour.

4. American Literature. Course similar to 3. Text-book: Beers or Pancoast, supplemented by reading of selected authors.

5. Anglo-Saxon. Text-book: Bright's Anglo-Saxon Reader. One hour.

6. The Rise of English Literature and Study of Chaucer. One hour.

7. The Rise of the Drama and Study of Shakespeare. One hour.

8. Spenser and English Romanticism.

9. The English Epic with the Study of Milton.

10. English Literature of the Eighteenth Century.

11. Poets and Prose Writers of the Nineteenth Century.

12. A study of great English Essayists, Bacon, Addison, De Quincey, Macaulay, Carlyle.

13. Forensics. Practice in argument and in writing of briefs, together with analysis and criticism of forensic masterpieces.

## Fine Arts as Applied to Architecture.

PROFESSOR AMATEIS, Head of Department.
ACTING PROFESSOR FRIEBUS.
MR. MEYER, Instructor in Free-hand Drawing.

1. Free-hand Drawing. One hour.

2. Architectural Drawing. One hour. (The five orders.)

3. Architectural Drawing. One hour. (Application of the five orders.)

4. Practice in Designing Monuments, Building, etc., of different styles; also lectures on history of ornaments, painting, and sculpture.

Drawing-rooms are open to students for practice from 10 a. m. to 10 p. m. daily.

## Geodesy.

PROFESSOR GORE, Head of Department.

1. As supplementary to the course in Engineering, instruction is offered in Geodesy, embracing base-line measurement, adjustment of triangulation, computation of geodetic coördinates, and a discussion of the figure of the earth.

Text-book: Gore's Elements of Geodesy, 3d edition.

## Geography.

PROFESSOR GREELY, Head of Department.
MR. PORTER, Assistant.

The course of instruction will include Physical and Economic Geography. The methods followed will embrace compilations, collations, and investigations by the students, and courses of lectures by the professor. The latest text-books will be supplemented by the discussion of recent geographical data drawn largely from current scientific and statistical publications of the various Governmental bureaus in Washington.

I. Physical Geography: two hours. Especial attention will be given to such parts of the earth as by fauna and flora, by mineral and vegetable deposits, or by other favoring physical conditions, either contribute most largely or promise future advantages to human welfare. Among other subjects will be considered the material influence of climatic conditions and geological formations as factors in the development of natural resources; modifications and extensions of fauna and flora by human or natural agencies; discoveries of mineral, vegetable, and other deposits; transference of centers of population, industries, and commerce; improvements of natural and creation of artificial transportation routes, and other similar physical features related to human activities.

II. Economic Geography: two hours. The subjects specially studied bear on the most important factors connected with the development of agricultural and mineral resources, the extension and evolution of industrial methods, and their dependence on trade and commerce. The growth or decadence of the more important activities of countries or regions, transitions in industrial methods, modifications of commercial relations, the development of improved transportation routes, will be considered in their relations to each other and their effect on the future development of the world in general and the United States in particular.

## Geology and Mineralogy.

PROFESSOR MERRILL, Head of Department.
MR. STANTON, Instructor in Paleontology and Stratigraphical Geology.

1. Descriptive Mineralogy. Two hours for one term.
2. Determinative Mineralogy. Four hours for one term.

GEOLOGY.

1. Systematic Geology; Geognosy; Dynamical, Structural, and Stratigraphical Geology. Two hours. Text-book: Leconte's Elements of Geology.

2. Economic Geology. Two hours. Text-books: Kemp's Ore Deposits of the United States, Merrill's Stones for Building and Decoration.

Mineralogy is taught as introductory to geology. The course is therefore designed with especial reference to minerals as rock constituents or as segregated in ore deposits. So far as possible, the course is practical and includes a study of the ores of the base and precious metals and their associates, and the non-metallic minerals, as the natural salts and the hydrocarbon compounds. Opportunity is given the student to become familiar with blowpipe and qualitative methods of determination, and access is given to a varied collection showing the minerals not merely in their pure and well crystallized forms, but in massive and granular forms, associated with gangue products and other impurities as occurring in nature.

The Course in Geology consists of lectures, recitations, laboratory and field work. Opportunity is given the students in the laboratory, and, so far as hours will permit, in the field as well, to familiarize themselves with the appearance and general characteristics of rock masses. Text-book recitations are supplemented by lectures on the subjects of rock-formation by sedimentation, metamorphism, and vulcanology, and, so far as time allows, on the methods of study by means of the microscope and thin sections (micropetrology). Under the head of Applied Geology are considered, mainly by lectures and laboratory practice, the subjects comprised under, (first) mineral veins and metalliferous deposits, their mode of occurrence, origin, and classification; (second) the ores of iron, copper, lead, zinc, tin, silver, gold, mercury, manganese, antimony, etc.; and (third) the non-metallic minerals, as the coals and hydrocarbon compounds; salts and materials used in chemical manufactures; abrasive, refractory, and fictile materials, mineral pigments, gems and ornamental stones, building stones, limes and cements, and mineral waters.

Paleontology is treated as a branch of geology, with special reference to its use in stratigraphy and correlation. As an introduction to the subject, representatives of the principal invertebrate types are studied. The successive faunas are then taken up, and the most characteristic forms are studied in connection with the distribution and stratigraphy of the sedimentary rocks of each period.

## German.

PROFESSOR SCHOENFELD, Head of Department.

1. Accurate training in elementary grammar (Otis); pronunciation and translation from English into German; exercise in conversation; readings from Andersen's Bilderbuch ohne Bilder, Storm's Immensee, and some easy German poetry. Two hours.

2. More extended course in German syntax and principal difficulties of the language, idioms, etc.; extensive translations into German; Gore's Science Reader, fourth edition; selected stories; Lessing's Minna von Barnhelm. Two hours.

3. Study of idioms, synonyms, and Sander's Hauptschwierigkeiten der deutschen Sprache; special preparation for scientific professional work; Helmholtz on Goethe's work in natural history (edition of Seidensticker); Gore's Du Bois-Raymond's Rectoratsreden; critical studies of German classics; lectures on German literature. Two hours.

A special course in German training for advanced students in History and Economics is offered. Schoenfeld's German Historical Prose and the standard works of German historians and economists will be read. Number of hours subject to arrangement.

## Greek.

ASSISTANT PROFESSOR PYNE.

1. White's Beginner's Greek Book; Xenophon's Anabasis, Book I. Two hours.

2. Xenophon's Anabasis, Books II and III; Goodwin's Greek Grammar (revised edition); Homer's Iliad, Books I, II, and III; Exercises. Two hours.

3. Homer's Iliad, Books IV, V, and VI; Herodotus (Seymour); Goodwin's Greek Grammar (revised edition); Exercises. Two hours.

4. Lysias; Isocrates; Demosthenes; Goodwin's Greek Grammar. Composition. Two hours.

5. A special course will be offered in New Testament Greek. This course is open to all students who have completed course 1 or its equivalent.

Courses 1 and 2 do not count for a degree.

## History.

PROFESSOR FARQUHAR, Head of Department.

1. American History. Text-books: Eliot, Fiske, Johnston. Reference books: Bancroft, Adams, Von Holst, McMaster. Two hours.

2. Ancient History. Text-books: Myers, Merivale. Reference books: Brugsch, Rawlinson, Grote, Arnold, Mommsen. Two hours.

3. Mediæval History. Text-books: Myers, Bryce, Church. Reference books: Gibbon, Hallam, Guizot. Two hours.

4. Modern History. Lecture course. Two hours.

5. English History. Text-books: Airy, Green. Reference books: Freeman, Froude, Macaulay. Two hours.

6. Bible History. Lecture course. Reference books: Ancient History generally, with Edwald, Renan. Two hours.

Instruction in this department will be given both by text-books and lectures. The method will be rational and comparative rather than precise and mechanical. The course of human progress and development, the growth of institutions and civilization, will receive more emphasis than separate facts. The unequalled facilities for historical research afforded by the Capital of the Nation will be held in view of the classes, and essay-work required.

## Latin.

PROFESSOR MONTAGUE, Head of Department.
ASSISTANT PROFESSOR PYNE.

1. Collar and Daniell's First Latin Book; Lindsay's Cornelius Nepos. Two hours.

2. Lindsay's Cornelius Nepos; Cæsar; Harkness's Latin Grammar; Exercises. Two hours.

3. Cicero; Vergil; Harkness's Latin Grammar; Exercises. Two hours.

4. Ovid; Livy; Harkness's Latin Grammar; Exercises. Two hours.

5. Horace, Odes and Satires; Cicero, De Amicitia; Tacitus, Germania and Agricola; Harkness's Latin Grammar; Exercises. Two hours.

6. Juvenal; Pliny; Plautus; Terence. Two hours.

Courses 1, 2, and 3 are preparatory and do not count for a degree.

## Mathematics.

PROFESSOR HODGKINS, Head of Department.
MR. HODGKINS, Assistant.

(*A.*) Elementary Algebra: three hours. Bowser's College Algebra.

(*B.*) Plane Geometry: three hours. Phillips and Fisher's Elements of Geometry.

1. Algebra: three hours. Bowser's College Algebra.

2. Geometry: two hours. Phillips and Fisher's Elements of Geometry.

3. Trigonometry: three hours, first term. Crockett's Plane and Spherical Trigonometry.

4. Analytic Geometry: three hours, second term. Bowser's Analytic Geometry.

5. Calculus: two hours. Bowser's Calculus.

6. Differential Equations: two hours. Johnson's Differential Equations.

7. Least Squares: two hours, ten weeks.

A lecture course, with references to Merriman's Least Squares and Wright's Treatise on the Adjustment of Observations.

8. Determinants: two hours, ten weeks. Weld's Determinant's; Hanus's Determinants.

9. Quaternions: two hours, ten weeks. Hardy's Quaternions.

10. Analytic Geometry of Three Dimensions: two hours, ten weeks.

11. Theory of Equations: two hours, ten weeks.

12. History of Mathematics.

Courses A and B are preparatory courses, intended for beginners, and do not count for a degree. It is expected that students entering courses 1 and 2 shall have studied plane geometry and through quadratic equations in algebra. But as a thorough and ready knowledge of these elements is so essential to a proper understanding and mastery of the subsequent courses, and as many who have not studied mathematics for some years wish to enter these classes, it has been customary to devote the first part of the year to a careful but rapid review of some of the earlier parts.

Courses 7 to 12 are short lecture courses, and, while intended especially for students who wish only the elements of the subjects, serve as prepara-

tion for the advanced courses described under the Graduate School. Usually only three of these five courses will be given each year.

## Mechanical Engineering.

PROFESSOR ZOPKE, Head of Department.
MR. FARWELL, Associate Professor of Mechanical Engineering.
MR. MUIR, Assistant in Machine Drawing.

1. Machine Drawing.—A course for civil engineering and architectural students. One hour.

2. Machine Drawing.—A course for the representation of mechanical machinery (working drawings). Four hours.

3. Machine Drawing.—An advanced course for mechanical engineering students. (Assembly drawings, drawing of piping and foundation plans, and of boiler and machine plants.) Four hours.

4. Machine Drawing.—A course for the representation of electrical machinery (working drawings). Four hours.

5. Machine Drawing.—An advanced course for electrical engineering students. (Drawing of electrically driven machinery; wiring and connection diagrams; drawing of electric plants.) Four hours.

6. Machine Elements.—Theory and construction of the elements of machines. Four hours.

7. Designing of Machine Elements and Simple Mechanical Machinery.—Six hours.

8. Hoisting Machinery.—Two hours, 1 term.

9. Designing of Hoisting Machinery.—Two hours, 1 term.

10. Investigation of Fundamental Machine Problems.—Two hours.

11. Summary of Mechanical Engineering.—Three hours.

The Department of Mechanical Engineering lays main stress upon designing and construction work.

No manual training nor shop practice is offered, but the University considers it a necessity for successful professional work that the student should devote at least a year's time, either before entering or after leaving the school, to the study of practical operations in use in the locksmith, turning, blacksmith, pattern-making, moulding, foundry, and mounting departments of factories with ample facilities.

## Mental and Moral Philosophy.

PROFESSOR LODGE, Head of Department.

The method of instruction is, first, inductive, viewing the states of consciousness as complexes of physiological and psychological elements which are to be discriminated, described, and correlated empirically by the student; second, historical, tracing the evolution of philosophic opinions; third, comparative, passing in review the teachings of the greatest thinkers on the problems investigated in the class-room.

1. Physiological Psychology. The class is introduced to the study by lectures on man's place in nature. In these the theory of evolution is discussed, and a summary of the arguments for and against it is given. During the first term the class studies Ladd's "Outlines of Physiological Psychology." The text-book for the second term is Porter's "Elements of Intellectual Science." Continued references are made to the writings of Wundt, Ribot, Sir William Hamilton, McCosh, Hall, Dewey, Sully, and James. Two hours.

2. Rational Psychology. In the first term Dr. Porter's book is completed. During the second term the results of the recent researches along the lines of psycho-physics are announced and interpreted. Care is taken to define the relations of psychology to pedagogy. Every lecture is followed by a brief oral examination thereon. The class is required to read and summarize in writing the most important articles that appear during the session in the *American Journal of Psychology*. Each student at the beginning of the second term is assigned a subject for investigation. On this subject a satisfactory essay must be written before the end of the session.

The above course will be supplemented by lectures, giving first a summary of ancient and mediæval speculation, and then discussing the essential characteristics, the development, the influence, and the fruits of the philosophic systems of such typical thinkers as Descartes, Locke, and Kant. Two hours.

3. Logic, Deductive and Inductive. Text-books: Jevons, Fowler; lectures, with frequent references to Whately, Hamilton, Thomson, and Mill. Special care is taken to develop the psychological basis of logical rules. Two hours.

4. Moral Philosophy. The instruction in moral philosophy includes the following features:

I. Students are taught to recognize, prescind, and correlate the ethical elements in psychical life.

II. The common terminology of ethics is subjected to a rigorous examination, psychological and philological, in order that the precise content of each word, as well as its origin and life-history, may be learned.

III. The course of moral speculation is outlined in lectures upon the chief ethical systems from Socrates to Spencer.

IV. The class then begins the study of Calderwood's "Handbook of Moral Philosophy," which is used as the basis of instruction during the remainder of the year. Two hours.

## Meteorology and its Applications.

PROFESSOR ABBE, Head of Department.
ASSISTANT PROFESSOR MARVIN.
MR. ABBE, Instructor in Physiography.

The courses in Meteorology are designed to give a complete review of the present condition of that science, and they are necessarily extended through five years, but the lectures are so arranged that each of the five divisions is complete in itself. Each course presents a detailed view of its branch of the subject, such as may be desired by students who need this information in connection with other branches of knowledge to which they are specially devoting themselves.

In addition to the Lectures, the Professor will devote one hour a week to a quiz class, in which, by questions and answers, he will seek to remove any difficulties that remain.

Physiography as a branch of Geology is assigned to the department of Meteorology as being that special application of Climatology to Geology whereby the history of the formation of the surface of the earth is explained.

1. OBSERVATIONAL METEOROLOGY.—Personal diary of the weather; general methods of observing without instruments; the rain gauge; the thermometer; the barometer; the nephoscope; the anemometer; hygrometry; actinometry; self-registering apparatus; observations in balloons; observations on mountain stations; meteorological expeditions by land and sea; forms for record; methods of computation of means and normals; graphic methods of presenting results. Two hours.

2. General Climatology.—Elements of climate; general distribution over the earth of sunshine, temperature, moisture, pressure, wind, clouds; diurnal, annual, and secular periodicities; variability of local climates; empirical relations between the winds and the other elements; the absorption of radiations by the atmosphere; the theory of probabilities as used in climatology; the computations of the coefficients of the Bessels-Fourier equation; the climatic features of areas of high and low pressure; the relations between ocean currents and the atmosphere; solar and lunar tides; the constituents of the atmosphere and their variations; atmospheric dust; atmospheric moisture; climatic characteristics of oceanic, continental, and littoral regions; sensible temperatures; constitution of the atmosphere as affected by plants, animals, altitudes, and the ocean; influence of snow, swamps, and forests. Two hours.

3. Special Subjects in Meteorology and Climatology.—Optical phenomena: (*a*) atmospheric refraction, reflection, and dispersion; (*b*) twilight; (*c*) scintillation; (*d*) blue light of the sky; (*e*) polarization of skylight; (*f*) haloes, glories, and coronas; (*g*) rainbows; (*h*) parhelia; (*i*) red and green suns.

Thermal phenomena: (*a*) selective absorption; (*b*) the bolometer and bolograms; (*c*) radiation from the dust and vapor; (*d*) convection and conduction of heat.

Acoustic phenomena: (*a*) refraction and reflection of sound; (*b*) fog signals; (*c*) thunder; (*d*) meteorite explosions.

Electrical phenomena: (*a*) atmospheric potential; (*b*) the theory of Exner and Trabert; (*c*) the lightning flash; (*d*) auroral light; (*e*) diffuse discharges on mountain tops and within snow-storm clouds.

Climate and geology: (*a*) morphology of the earth's surface; (*b*) the atmosphere and ocean; (*c*) climates and geological ages; (*d*) physiography of recent geologic times; (*e*) glacial epoch; lessons from the migrations of birds and the distribution of mammals, fishes, and plants.

Climate and vegetation: (*a*) phænology; (*b*) acclimatization; (*c*) geographic distribution of plants; (*d*) frosts and droughts; (*e*) electroculture; (*f*) climate and crop statistics.

Climate and anthropology.

Climate and hygiene: (*a*) warming and ventilation; (*b*) humidity and sensible temperatures; (*c*) longevity, mortality, and disease.

Climate and engineering: (*a*) hydraulics of rivers; (*b*) prediction of floods; (*c*) wind pressure and strength of buildings; (*d*) wind and windmills; (*e*) solar motors; (*f*) wind and sailing vessels; (*g*) rainfall, evaporation, and irrigation; (*h*) flying and aërial navigation.

Climate and manufacturing industries: (a) *drying and curing*, operations in preserving fish, meat, fruit, and the manufacture of paper, salt, etc.; *bleaching*, in the manufacture of cotton and linen; *humidty*, in the spinning of silk, cotton; the harvesting of ice.

Atmospheric dust in relation to rain, geology, vegetation, hygiene, manufactures. Montgomery J. Storm's Steam-engine and Barnes's Cloudy Condensations.

The relation of the atmosphere to ordnance operations. Two hours.

4. PHYSIOGRAPHY OR ELEMENTARY PHYSIOGRAPHIC GEOLOGY.—This course is meant to supplement a course in Elementary Geology, and deals with the origin and development of the forms of the earth's surface. This subject includes the life histories of rivers, lakes, mountains, plateaus, plains, coast lines, continents, islands, etc., and a classification of these different features both with reference to all these classes and to each class as such. Consideration is also given to topographic forms in their relation to climate and to human occupation.

Although an elementary knowledge of geology is necessary for the best understanding of the subject of physiography, the lack of this need not be a bar to entering the course, as complete explanations of geological points will be made when wanted.

The course will occupy two hours a week, one hour being devoted to a lecture, and the second hour (immediately succeeding the lecture if possible) will be taken up in examination and study of the maps, charts, photographs, and models.

If possible, there will be occasional field-lectures in place of laboratory work, when various points in the neighborhood of Washington will be visited and the important features of the local topography pointed out.

## Physics and Electrical Engineering.

PROFESSOR WOLFF, Head of Department.

1. General Physics. Three hours. First term: Mechanics, Sound, and Heat. Second term: Light, Electricity, and Magnetism. Text-books: Physical Series, Cambridge Science Manuals.

This course will be fully illustrated by experiments, and practical physical measurements will be made before the class.

2. Elementary Mathematical Theory of Electricity and Magnetism. Three hours for one term. Text-book: S. P. Thompson's Electricity and Magnetism.

3. Dynamo-electrical machinery. Three hours for one term. Text-book: Hawkins and Wallis, The Dynamo.

4. Advanced Mathematical Theory of Electricity and Magnetism. Two hours for one term. Lectures based on Gerard's Electricity and Magnetism.

5. Dynamo-electric Machinery. Advanced course. Two hours, one term. Text-books: S. P. Thompson, Dynamo-electric Machinery, Polyphase Currents.

6. Technical Applications of Electricity. Two hours.

7. Advanced Physics. A mathematical course intended to acquaint the student with the methods of mathematical physics, and as an introduction to the more advanced courses in the Graduate School.

8. Physical Chemistry. A short course with special reference to the modern theories of solutions.

9. Elementary Laboratory Work. Three hours. The exercises will include fundamental measurements and experiments in all branches of Physics.

10. Advanced Laboratory Work for Juniors. Six hours. This will include such experiments as those described in the laboratory manuals of Glazebrook and Shaw, Stewart and Gee, and Nichols.

11. Advanced Laboratory Work for Seniors. Dynamo and motor testing, with determinations of their characteristics.

12. Inspection of electric light and power plants. In and around Washington and Baltimore are a number of electric-lighting and street-railway plants which afford students of electrical engineering an excellent opportunity of familiarizing themselves with nearly all types of electrical machinery. The visits will be followed by a class discussion.

Occasional meetings will be held at which papers on special subjects will be read by advanced students.

## Romance Languages.

PROFESSOR RAMSEY, Head of Department.

### FRENCH.

1. As the aim of the instruction during the first year is to give the students a working knowledge of the language, their efforts are centered

upon its grammatical construction and the acquisition of a vocabulary. By the end of the year the class is expected to have mastered the essentials of the grammar and to be able to read easy French prose and to understand it when spoken. To this end the French language is used largely as a medium of instruction. Two hours.

Text-books: Chardenal's French Course; Bercy, La Langue Française (part 1); Halévy, L'Abbé Constantin (Super's edition, with notes and vocabulary).

2. Continuation of the study of grammatical constructions, with exercises in composition and conversation. Occasional lectures in French on topics of general interest. Oral drill in sight rendering of English into French. Study of synonyms and idioms. Two hours.

Text-books: Whitney's Practical French Grammar; Lacombe, Petite Histoire du Peuple Française; Mérimée, Colomba; Corneille, Horace.

3. General introduction to the study of French literature. Literary composition and the principles of rhetoric. Lectures on the development of the language and upon prominent periods of the literature. Two hours.

Text-book: Fortier, Histoire de la Littérature Française. The texts read, which must be representative of at least three distinct periods, are selected by the class.

4. Advanced prose composition and verbal criticism. Two hours.

Text-books: Howard's Aids to French Composition; Méras, Syntaxe Pratique; Muzzarelli, Antonymes de la Langue Française; Crouslé, Grammaire Française (Cours Supérieur); Legouvé, La Lecture en Action.

SPANISH.

5. The class is drilled in pronunciation, in hearing the spoken language, in writing from dictation, and in oral and written translation, into Spanish, of carefully graded exercises. The essentials of the grammar are presented, accompanied by practice in reading and conversation. Two hours.

6. More extended presentation of the grammatical structure of the language. Critical and comparative study of syntax and idioms. History and development of the Castilian language and literature. Exercises in literary composition. Reading from standard works of modern Spanish and Spanish-American authors. Two hours.

Text-books: Ramsey's Text-book of Modern Spanish; Ramsey's Elementary Spanish Reader, and Spanish texts, to be selected as required.

The course has special reference to the rapidly increasing intercourse between the United States and the Spanish-American Republics, and as much attention as possible is given to the customs, usages, resources, and products of those countries.

ITALIAN.

7. The class is drilled in pronunciation, in hearing the spoken language, and in translating the exercises of the text-book. After the rudiments of the grammar have been mastered the class is led at once to the reading of the easier prose authors, ending with the "Alberto" of De Amicis. Two hours.

8. Further study of the grammatical construction and the principles of syntax and style. History and development of the Tuscan language and literature. Selections from Dante Alighieri, Petrarca, Boccaccio, Ariosto, Tasso, Goldoni, Pellico, and Manzoni. Two hours.

Text-book: Sauer's Italian Grammar.

## Slavonic Languages.

PROFESSOR SCHOENFELD, Head of Department.

An introductory course in the Polish language and literature is offered, as the first and richest among the Slavonic tongues, to be followed by Bohemian in the next scholastic year.

1. A Survey of the Polish Grammar, its phonetic laws, its position among the other languages of the Indo-European family, will be given. Reading of easy prose and poetry.

2. Syntactical structure of the Language, its history and foreign elements. Extracts from Mickiewicz's and Kraszewski's master works will be read. A collection of Polish national songs and legendary poetry will be studied.

These courses are introductory to a future graduate department in the Slavonic languages. Students will consult Morfill's Story of Poland, Geschichte von Polen, Prof. Carvand, Prof. Röppell, and Dr. Schoenfeld's work on "Higher Education in Poland" (U. S. Bureau of Education); his articles on Slavonic literatures in Johnson's Universal Cyclopædia, and his essays on the "Partition of Poland" and "Polish Elements in German Literature."

## Zoölogy.

PROFESSOR GILL, Head of Department.
MR. HAY, Assistant.

1. Elements and General Principles of Zoölogy, Lectures. One hour.
2. Natural History of Vertebrates and Invertebrates, Laboratory. Text-book: Needham's Elementary Zoölogy. One hour.

## Mechanical Laboratory.

A laboratory has been fitted with benches and tools so as to enable students in Chemistry, Physics, and Engineering to construct apparatus needed in their experimental work and researches.

## University Library.

The Library is open every day until 10 o'clock p. m. for purposes of study and inquiry, and is supplied with the leading reviews and periodicals.

## University Lectures.

Students of the Corcoran Scientific School are admitted without further fee to the University Lectures; and, when qualified to profit by them, they can secure admission to lectures, other than the law lectures, given in the University Hall, by applying to the Dean.

## Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* in the Columbian College and the Corcoran Scientific School shall be closed at least three weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least two weeks before the date of Commencement."

"Examinations for *prizes* in each of the said Departments shall be closed at least three weeks before the end of the scholastic year, and the

names of the successful candidates for either shall be reported at least two weeks before the date of Commencement."

"No student shall be admitted to an examination for promotion from a lower to a higher class, or to a final examination, who is in arrears for tuition and whose name has not been certified to the Dean of the School (proposing to hold an examination) by the Treasurer."

Professors and Instructors will require students entering examinations to present their certificates from the Treasurer before permitting them to be examined.

## Requirements for Degrees.

A definite value or weight is assigned to the subjects taught, the unit being, in general, *one recitation a week for a year*, with a satisfactory examination sustained at the close; but this weight varies for laboratory, designing, and field work.

The degree of Bachelor of Science is conferred upon a student who successfully completes one of the full courses offered or other equivalent course, aggregating not less than sixty-eight units, which has been approved by the Faculty.

## Scholarships.

*Mary Lowell Stone Scholarship*, founded as "a memorial to a woman student of science, from a woman, for women students of science," consists of a fund of two thousand dollars, the income from which "is to be paid to needy women, students in the Corcoran Scientific School of the Columbian University, at the discretion of the Dean of said School."

*Edward T. Fristoe Scholarship*, founded in memory of the first Dean and Professor of Chemistry of the Corcoran Scientific School, consists at present of a fund of three hundred and fifty dollars, the income from which may be paid to some deserving student of chemistry at the discretion of the Dean.

*Robertson Scholarship in Accounting*, established by Mr. P. W. ROBERTSON during the past year, is awarded on competitive examination, and entitles the holder to free tuition for one year in this subject.

## Loan Collection of Text-books.

Through the generosity of Mrs. SUSAN MOORE a collection of text-books has been provided, to be loaned to indigent students at the discretion of the Dean.

## Prizes.

The Willie E. Fitch Prize, for highest excellence in all branches of Chemistry, founded by James E. Fitch, Esq., in memory of his son, consists of fifty dollars, which is awarded annually to the student passing the best examination in the Department of Chemistry.

SCHMIDT PRIZE.—This prize was established by Mr. Fred. A. Schmidt, of Washington, in 1894, and is to hold good for a period of ten years. The prize consists of a set of Alteneder's Drawing Instruments in a leather case. All students in *full* standing in the second year taking a *full* course in either of the departments of Architecture, Civil Engineering, Electrical Engineering, or Mechanical Engineering are considered applicants without further notice.

The prize will be awarded to that student passing highest in Descriptive Geometry and the second year mathematical studies, taken in common by all the students in the above-named four departments; Descriptive Geometry *plates* to count seventy-five (75) per centum, and twenty-five (25) per centum to be evenly distributed between the yearly examinations in Descriptive Geometry and the second year mathematical studies taken in common by all four departments.

VEERHOFF MEDAL.—Mr. W. H. Veerhoff offers a gold medal to that student who obtains the best average in the first year of the course in Fine Arts as applied to Architecture.

AMATEIS MEDAL.—Professor Louis Amateis offers a gold medal, to be given to the student who, graduating with the degree of Bachelor of Science in Architecture, obtains the highest relative standing in Fine Arts as applied to Architecture, Building Construction, and in Architecture.

## Annual Tuition Fees.

| | |
|---|---|
| For single studies, without laboratory work | $40 00 |
| For two studies, without laboratory work | 75 00 |
| For three or more studies, without laboratory work | 100 00 |
| Course 10 in Chemical Laboratory, including cost of material and apparatus | 50 00 |
| Laboratory Course in Chemistry (except 10) | 100 00 |
| For chemicals used | 25 00 |
| Deposit (returnable) for breakage | 25 00 |
| Laboratory Courses in Assaying of Ores and Bullion | 40 00 |
| For materials used | 20 00 |

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|---|---|
| Elementary Course in Physical Laboratory | $20 00 |
| Advanced Course in Physical Laboratory | 30 00 |
| Laboratory Course in Mineralogy | 60 00 |
| For materials used | 10 00 |

**Annual Fees for Full Courses of Study Leading to the Degree of Bachelor of Science.**

| | | | | |
|---|---|---|---|---|
| First year (common to all courses) | | | | $100 00 |
| Second year, | Course | 1 (laboratory fees extra) | | 100 00 |
| Third | " | 1 | " | 100 00 |
| Fourth | " | 1 | " | 100 00 |
| Second | " | 2 | | 100 00 |
| Third | " | 2 | | 100 00 |
| Fourth | " | 2 | | 100 00 |
| Second | " | 3 | | 120 00 |
| Third | " | 3 | | 130 00 |
| Fourth | " | 3 | | 130 00 |
| Second | " | 4 | | 120 00 |
| Third | " | 4 | | 100 00 |
| Fourth | " | 4 | | 100 00 |
| Second | " | 5 | | 130 00 |
| Third | " | 5 (deposit, $10.00) | | 150 00 |
| Fourth | " | 5 (deposit, $10.00) | | 150 00 |
| Second | " | 6 | | 130 00 |
| Third | " | 6 (deposit, $10.00) | | 150 00 |
| Fourth | " | 6 (deposit, $10.00) | | 150 00 |
| Second | " | 7 | | 100 00 |
| Third | " | 7 | | 100 00 |
| Fourth | " | 7 | | 100 00 |
| Second | " | 8 | | 130 00 |
| Third | " | 8 | | 120 00 |
| Fourth | " | 8 | | 130 00 |
| Second | " | 9 | | 130 00 |
| Third | " | 9 | | 100 00 |
| Fourth | " | 9 (laboratory fees extra) | | 100 00 |
| Second | " | 10 | | 150 00 |
| Third | " | 10 (deposit, $10.00) | | 150 00 |
| Fourth | " | 10 | | 100 00 |
| Second | " | 11 | | 100 00 |

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| Third year, Course | 11 | $100 | 00 |
| Fourth " " | 11 | 100 | 00 |
| Second " " | 12 | 100 | 00 |
| Third " " | 12 | 100 | 00 |
| Fourth " " | 12 | 130 | 00 |
| Second " " | 13 | 100 | 00 |
| Third " " | 13 | 100 | 00 |
| Fourth " " | 13 | 100 | 00 |
| Diploma fee (final) | | 10 | 00 |

The tuition fees for special technical instruction not included in the above statement will be fixed when demanded, and will be determined largely by the number of students offering themselves in such work.

*All fees are payable in advance*, unless special arrangement be made with the Treasurer to suit the convenience of the student. *Fees for single or for special studies are payable in advance in half-yearly installments. No deduction on account of absence will be made for less time than one-quarter of a scholastic year.*

A student desiring to make any change in his course of study or to drop any study *must* inform the Dean of this fact at the beginning of the month and have the change, if approved, indorsed on his matriculation certificate. *Students failing to conform to this requirement are responsible for the fees entered on their certificates until such notice is rendered.*

## Text-books.

| | |
|---|---|
| Abbe, Meteorological Apparatus and Methods, 1887 | |
| Abbe, Progress in Dynamic Meteorology, 1888 | |
| Abbe, Short Memoirs on Meteorological Subjects, 1877 | |
| Abbe, The Mechanics of the Earth's Atmosphere, 1893 | |
| Arthur, Barnes and Coulter, Plant Dissection | $1 29 |
| Andersen, Bilderbuch Ohne Bilder | 30 |
| Andromaque | 25 |
| Baker, Masonry Construction | 4 50 |
| Barker, Physics | 3 78 |
| Barker, Elementary Chemistry | 1 40 |
| Bastin's College Botany | |
| Bessey's College Botany | |
| Beers, Outlines of American Literature | 60 |
| Bercy, La Langue Française, Part I | 1 25 |
| Bloxam, Chemistry | 3 60 |
| Blair, Chemical Analysis of Iron | 3 60 |
| Bright, Anglo-Saxon Reader | 1 86 |
| Brown, Manual of Assaying | 2 50 |
| Burrell, Building Construction | 80 |
| Bowser, Analytic Geometry | 1 75 |
| Bowser, College Algebra | 1 65 |
| Bowser, Calculus | 2 25 |
| Breese, Water Wheels | 2 25 |
| Brush, Determinative Mineralogy | 3 15 |
| Bug-Jargal | 40 |
| Clowes, Qualitative Analysis | 2 00 |
| Cohen, Practical Organic Chemistry | 70 |
| Chardenal, French Course, Part I | 60 |
| Chase and Stuart, Cæsar, new edition | 1 00 |
| Chase and Stuart, Cicero's Letters | 1 00 |
| Chase and Stuart, Cicero's Orations | 1 10 |
| Chase and Stuart, Cicero's De Senectute | 95 |
| Chase and Stuart, Vergil's Æneid, 6 books | 95 |
| Chase and Stuart, Ovid | 1 10 |
| Chase and Stuart, Livy | 1 10 |
| Chase and Stuart, Horace's Odes | 1 10 |
| Chase and Stuart, Horace's Selections | 1 00 |
| Chase and Stuart, Tacitus | 95 |
| Chase and Stuart, Juvenal | 95 |
| Chase and Stuart, Pliny's Letters | 1 00 |
| Cooke, Laboratory Practice | 80 |
| Calderwood, Moral Philosophy | 1 60 |
| Corneille, Horace | 40 |
| Crockett's Trigonometry | 1 25 |
| Crouslé, Grammaire Française, Cours Supérieur | 75 |
| Dana, Text-book of Mineralogy | 3 15 |
| Dana, Manual of Geology | 3 84 |
| Emtage, Electricity and Magnetism | 1 90 |
| Erckmann-Chatrian, Histoire d'un Conscrit | 1 00 |
| Fenck, Geo-Morphologie, 1895 | 8 00 |
| Ferrel, Popular Treatise on the Winds, 1887 | 4 50 |
| Ferrel, Recent Advances in Meteorology, 1885 | |
| Fiske, Civil Government | $1 00 |
| Fowler, Inductive and Deductive Logic | 1 75 |
| Fortier, Histoire de la Littérature Française | 1 00 |
| Fresenius, Qualitative Analysis | 3 60 |
| Fresenius, Quantitative Analysis | 5 40 |
| Frieze, Quintilian | 1 20 |
| Frye, Complete Geography, 1895 | 1 25 |
| Gaillard, French Vocabulary | |
| Gray, Structural Botany | 2 00 |
| Gray, Manual of Botany | 1 62 |
| Geikie, Text book of Geology | 7 50 |
| Genung, Practical Rhetoric | 1 40 |
| Gerard, Leçons sur l'Electricité, 2 vols | 6 00 |
| Goodale, Physiological Botany | 2 00 |
| Gore, Elements of Geodesy | 2 25 |
| Gore, German Science Reader | 85 |
| Halévy, L'Abbé Constantin | 42 |
| Harkness, Latin Grammar | 1 12 |
| Hann, Klimatologie, 1896 | 4 00 |
| Hanus, Determinants | 1 90 |
| Hardy, Quaternions | 2 15 |
| Hauff, Das Kalte Herz | 75 |
| Hempel, Gas Analysis | 1 90 |
| Hinman, Eclectic Physical Geography, 1888 | 1 20 |
| Howard, Aids to French Composition | |
| Hurst and Whiting, Seneca | 1 30 |
| Johnson, Differential Equations | 3 15 |
| Johnson, Surveying | 3 60 |
| Jevons (Hill), Logic | 1 00 |
| Kem, Mechanical Engineer's Pocket-book | 4 50 |
| Kemp, Ore Deposits of the United States | 3 60 |
| Lacombe, Petite Histoire du Peuple Français | 65 |
| Ladd, Outlines of Physiological Psychology | 2 00 |
| Lamb, Hydrodynamics, 1895 | 6 00 |
| Le Conte, Elements of Geology | 3 20 |
| Le Cid | 25 |
| Legouvé, La Lecture en Action | |
| Lounsbury's or Emerson's English Language | |
| Mackenzie, 19th Century | 1 00 |
| MacCord, Descriptive Geometry | |
| Méras, Syntaxe Pratique | 1 00 |
| Mérimée, Colomba | 45 |
| Merriman, Least Squares | 1 80 |
| Merriman, Mechanics of Materials | 3 15 |
| Munroe, Chemistry of Explosives | 3 00 |
| McCabe, Bingham Latin Grammar | 1 08 |
| McCabe, Bingham Cæsar | 1 08 |
| Merrill, Stones for Building and Decoration | 4 50 |
| Muzzarelli, Autonymes de la Langue Française | |

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| Needham, Elementary Zoölogy | $0 90 |
| Nunez El Lector Americano, No. 3 | 50 |
| Pancoast's Representative English Literature | |
| Peabody, Thermodynamics | 4 50 |
| Phillips, Engineering Chemistry | 3 20 |
| Phillips & Fisher's Geometry | 1 75 |
| Porter, Intellectual Science | 2 40 |
| Ramsey, Text-book of Modern Spanish | 85 |
| Remsen, Organic Chemistry | 1 30 |
| Reuleaux, Constructor | |
| Rickett, Notes on Assaying | 2 70 |
| Richter, Organic Chemistry | 3 60 |
| Rice and Johnson, Differential Calculus | 3 15 |
| Schoenfeld, German Historical Prose | 80 |
| Slingo and Brooker, Electrical Engineering | 2 80 |
| Sprung, Lehrbuch der Meteorologie, 1885 | 3 00 |
| Storm, Immensee | $0 25 |
| Tarr, Elementary Physical Geography, 1895 | 1 40 |
| Thompson, Dynamo-electric Machinery | 4 80 |
| Trautwine, Engineer's Pocketbook | 4 50 |
| Tuthill, Architectural Drawing | 2 00 |
| Thorpe, Quantitative Analysis | 1 35 |
| Wagner, Chemical Technology | 6 00 |
| Westermaier-Schneider's Compendium of General Botany | |
| Whitney's Practical French Grammar | 1 30 |
| Wright, Adjustment of Observations | 4 00 |
| Weisbach, Theoretical Mechanics | 9 00 |
| Young, General Astronomy | 2 50 |
| Zittel, Handbuch der Paleontologie. Issued in parts; prices vary. | |

## Rooms and Board.

During the year 1896–1897 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month. Lists of persons offering rooms and board can be obtained from the Secretary and Treasurer of the University.

For further information regarding the Corcoran Scientific School, application may be made to

CHARLES E. MUNROE, *Dean*,
*The Columbian University.*

## STUDENTS IN THE CORCORAN SCIENTIFIC SCHOOL.

### Candidates for Degrees.

| Name. | State. | Address. |
|---|---|---|
| John Phipps Alexander | Tenn. | 724 Seventeenth St., N. W. |
| Fanny May Allen | Md. | Anacostia, D. C. |
| Wilbert Baxley Appold | Md. | High Ridge, Maryland. |
| John Elmer Armstrong | N. Y. | 37 R St., N. W. |
| William Humphrey Aspinwall | Penn. | 1305 Riggs St., N. W. |
| Grant S. Barnhart | Penn. | 608 Third St., N. W. |
| Charles Clay Bayly | D. C. | 710 Nineteenth St., N. W. |
| George Lowman Beeler | Ill. | 409 G St., N. E. |
| William Frederick Biehl<br>Ph. B., University of Georgia.<br>LL. B., National University. | Ohio. | 1820 Ninth St., N. W. |
| David Holmes Blakelock | D. C. | 619 Sixth St., S. W. |
| James K. Boyd | Scotland. | 912 Twelfth St., N. W. |
| E. Roger Boyle | Md. | Hyattsville, Md. |
| Eugene Bradbury | Va. | Arlington, Va. |
| Martha M. Brewer | Mass. | Lanham, Md. |
| Archibald Webster Brown | Md. | Sligo, Md. |
| Francis Sharp Browne | Ga. | 144 R St., N. E. |
| Charles Fremont Burnside | Wash'n. | 2020 F St., N. W. |
| Ada Carman | N. J. | 1351 Q St., N. W. |
| William Deakins Cassin | D. C. | 1514 Thirtieth St., N. W. |
| Mary Agnes Clancey | D. C. | 2709 P St., N. W. |
| John Francis Clark | D, C. | 422 Florida Ave., N. W. |
| J. Clarence Cobb | D. C. | Mount Pleasant, D. C. |
| S. Clark Cross | D. C. | 813 Vermont Ave., N. W. |
| Harry Ormond Cutting | Wis. | 907 T St., N. W. |
| Z. Lewis Dalby | Va. | 914 Twelfth St., N. W. |
| George Jacob Davis, Jr | D. C. | 1320 Eleventh St., N. W. |
| Richard George Doerfling | Germany. | 45 Quincy St., N. E. |
| Aida Mary Doyle | Penn. | 1902 Third St., N. W. |
| Henry White Draper | D. C. | 2024 I St., N. W. |
| Maurice Owen Eldridge | Tenn. | Agricultural Department. |
| Edmund Percy Ellis. | D. C. | 121 Eleventh St., N. E. |
| Charles Russell Ely<br>A. B., Yale. | Md. | Kendall Green. |

| Name. | State. | Address. |
|---|---|---|
| Harry Farmer | Iowa | 1530 Tenth St., N. W. |
| William T. Faulkner | Miss. | Treasury Department. |
| Joaquin Gana | Chili | Chilean Legation. |
| Ellen Golden | N. Y. | 1823 Sixteenth St., N. W. |
| Raphael Newman Gwynn | D. C. | 17 Iowa Circle. |
| Roy Bagley Hayes | Wis | 59 N St., N. W. |
| Emma Pauline Heald | Mass. | 927 Westminster St., N. W. |
| James Edgar Hiatt | Ind. | 259 N St., N. W. |
| Ralph W. Hills | Ohio | 1345 Vermont Ave., N. W. |
| Lille B. Holbrook | Mass. | 943 Westminster St., N. W. |
| Lester Morton Holt | Wis | 433 M St., N. W. |
| Charles Emerson Hood | D. C. | 1017 O St., N. W. |
| Louis Illmer, Jr. | D. C. | 1301 Riggs St., N. W. |
| James Power Keleher | D. C. | 409 A St., S. E. |
| James Henry Kelley | N. Y. | 1737 Pennsylvania Ave., N. W. |
| William M. Lamson | D. C. | Anacostia, D. C. |
| William Arnold Landvoight | D. C. | 131 C St., S. E. |
| John C. Lewis | Conn. | 3009 Cambridge Place. |
| John Benjamin Lichty | Ill. | Pension Office. |
| Edward Janney Sidwell Lupton | W. Va. | 1309 H St., N. W. |
| Guy Bennett Marean | D. C. | 1900 Lincoln Ave. |
| Ralph Brewster Marean | Penn. | Brookland, D. C. |
| Victor Louis Mason | D. C. | 203 Seaton St., Eckington. |
| Thomas H. Means | Va. | Brookland, D. C. |
| Orton Love Meigs | D. C. | 325 Second St., S. E. |
| Edward Adams Muir | Penn. | 512 Third St., N. W. |
| William Thackara Murphy | N. C. | 1902 G St., N. W. |
| Miles Novotny | Ill. | 922 I St., N. W. |
| Charles Lieberman Parker | D. C. | 1425 Corcoran St., N. W. |
| William Durham Pasco | Fla. | 1213 H St., N. W. |
| Joseph Saxton Pendleton | D. C. | 1752 M St., N. W. |
| John Peters | Wis | 614 Sixth St., N. W. |
| Charles Preston Phelps | D. C. | 113 Third St., N. E. |
| Gaston Pearson Philip | D. C. | 1409 L St., N. W. |
| Charles Herbert Pierce | Tenn. | 1407 Sixth St., N. W. |
| Alice Pollok | D. C. | 1006 N St., N. W. |
| Edward George Portner | D. C. | 1104 Vermont Ave., N. W. |
| Mary Meade Raborg | D. C. | 1643 Nineteenth St., N. W. |

| Name. | State. | Address. |
|---|---|---|
| Richard Galt Rawlings | D. C. | 606 Ninth St., N. W. |
| Fred Ferguson Reisner | Mo | 323 Maple Ave., N. W. |
| Guy Longfellow Seaman | Iowa | 1119 I St., N. W. |
| Frank Eugene Skinner | Md. | Takoma Park, D. C. |
| Frank Hosford Thatcher | Iowa | 717 Sixth St., N. W. |
| John Ambrose Thompson | D. C. | 1720 H St., N. W. |
| Wilford Ashford Thompson | Iowa | 1448 Corcoran St., N. W. |
| George Carroll Todd | Va. | 3169 P St., N. W. |
| Edward Briggs H. Tower, Jr. | D. C. | 1104 New Hampshire Ave., N. W. |
| Mayville William Twitchell | N. Y. | 712 N St., N. W. |
| Lineas Dott Underwood | Ohio | Patent Office. |
| Francis R. Weller | D. C. | 408 C St., S. E. |
| Henry Clinton Wilson | Md. | 1123 Fourteenth St., N. W. |
| Richard Winkleman | D. C. | 1122 Seventh St., N. E. |
| Henry Charles Workman | Mich. | 1419 Twentieth St., N. W. |

Candidates for degrees..... 85

## Special Students.

| Name. | State. | Address. |
|---|---|---|
| Arthur B. Adams | Md. | Takoma Park. |
| Caroline Hough Arms | N. Y. | 1525 I St., N. W. |
| Julius Leopold Arntzen | Mo. | 1706 F St., N. W. |
| Lucy Y. Arrick | D. C. | 1131 F St., N. W. |
| Frederick Ilsley Bartlett | D. C. | 708 Eleventh St., N. W. |
| William Maxwell Barton | Va. | 315 C St., N. W. |
| Frederick William Browne | Iowa | 221 First St., N. E. |
| Herbert Sidney Bryant | D. C. | 1605 Connecticut Ave., N. W. |
| Charles R. Burr | D. C. | Anacostia, D. C. |
| Edgar Bassett Calvert | Ill. | Weather Bureau. |
| Harriet Louise Cameron | Minn. | 250 Ninth St., N. E. |
| Ethel Theresa Camp | D. C. | 2118 L St., N. W. |
| Willis W. Case | D. C. | 156 A St., N. E. |
| Philip Hunter Cass | Neb. | 221 E St., N. W. |
| Theodore P. Caulkins | Idaho | |
| Edward MacKay Chace | Md. | Berwyn, Md. |

| Name. | State. | Address. |
|---|---|---|
| George V. Chandler | D. C. | 213 C St., S. E. |
| Annie Chipman | D. C. | 435 Massachusetts Ave., N. W. |
| Albert Adsit Clemons | Cal. | 1443 Corcoran St., N. W. |
| Lewis C. Conwell | Iowa | 3642 Thirteenth St., N. W. |
| W. E. Cotton | Iowa | 624 Eleventh St., N. E. |
| George Henry Davis | Mass. | 1705 Thirteenth St., N. W. |
| Mary Owen Dean<br>A. B., Woman's College, Balt. | D. C. | 618 Massachusetts Ave., N. W. |
| Cecilia Pinkney Dulin | D. C. | 2029 O St., N. W. |
| Morrill Dunn | Maine | 25 Lanier Place, N. E. |
| William A. Edwards | Ga. | 1300 Q St., N. W. |
| Stanley W. Finch | N. Y. | 921 P St., N. W. |
| Frank D. Fletcher | N. Y. | 1700 Fourteenth St., N. W. |
| Max Frank Foerster | Minn. | 1395 O St., N. W. |
| Ella May Ford | Va. | 63 New York Ave., N. E. |
| Edward Martin Friery | D. C. | 1307 M St., N. W. |
| Harry Summers Garner | Penn. | State Department. |
| Irene Gibson | Mo. | Document Office. |
| Anne May Goding | D. C. | 1218 Sixth St., N. W. |
| Herman Grimes | Va. | Alexandria, Va. |
| Percival Hall | D. C. | Kendall Green, D. C. |
| Robert F. Halpin | N. Y. | 756 Sixth St., S. E. |
| Wilmer H. Hampton | Va. | 1402 Sixth St., N. W. |
| F. W. Hart | D. C. | |
| Kate M. Hayden | Md. | 1313 Riggs St., N. W. |
| John Arnold Heydler | N. Y. | 230 N St., N. W. |
| William Eldridge Hillyer | Fla. | 412 A St., S. E. |
| Charles Wendell Holmes | Md. | 220 Eighth St., S. W. |
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| William Vans Edmundson Jacobs | Md. | 1224 Fourteenth St., N. W. |
| Philip M. Jullien | D. C. | Brookland, D. C. |
| William Houston Kerr | Mo. | 1328 W St., N. W. |
| Dorothy Newton Knight | D. C. | 1106 Maryland Ave., S. W. |
| Stephen E. Kramer | Ga. | 1512 Thirteenth St., N. W. |
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| Edith Leetch | D. C. | 1409 Thirty-first St., N. W. |
| Annie Johnston Lewis | N. C. | 1507 Vermont Ave., N. W. |

| Name. | State. | Address. |
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| Joseph Ewing Macfarland | Penna | 1727 F St., N. W. |
| Euphemia Macfarlane | D. C. | 920 Sixteenth St., N. W. |
| Eva A. Marvin | D. C. | 1923 Thirteenth St., N. W. |
| Paul Bishop McConville | Ohio | 1921 K St., N. W. |
| Mrs. Charles McGilley | D. C. | 718 Tenth St., N. W. |
| Lizzie McIntire | D. C. | 235 First St., N. E. |
| Margaret Jane Merillat | D. C. | 1430 Eighth St., N. W. |
| Thomas Sherlock Merrill | D. C. | 416 T St., N. W. |
| Jefferson Middleton | D. C. | 1214 T St., N. W. |
| W. Roy Mitchell | D. C. | 920 N St., N. W. |
| Charles Allyn Moore | D. C. | 529 Florida Ave., N. W. |
| John T. Moylan | D. C. | 1413 Pennsylvania Ave., N. W. |
| Robert Mason Nalle | Cal. | 38 C, Post Office Dept. |
| Edward Rogers Noyes | D. C. | 500 Maryland Ave., S. W. |
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| Louise Park | Mich | 1421 Twentieth St., N. W. |
| Clarence Le Roy Parker | N. Y. | 137 Carroll St., S. E. |
| Thomas Banks Perkins | D. C. | 1935 Thirteenth St., N. W. |
| Francis Elmer Phelps | Md. | 200 East Capitol St. |
| Julian Irving Pierce | Mich. | 101 G St., N. W. |
| Cora Henrietta Pimper | D. C. | 1226 Thirty-first St., N. W. |
| Katherine May Raber | Ohio | 1914 Harewood Ave., N. W. |
| George William Rea | D. C. | 1947 Vermont Ave., N. W. |
| Mark Riley | Texas | 1821 G St., N. W. |
| Margaret Bullock Robinson | D. C. | 1701 Tenth St., N. W. |
| Henry Cowles Rucker | Va. | 214 E St., N. W. |
| Franklin Augustus Ruggles | D. C. | 1224 Seventeenth St., N. W. |
| Arthur B. Russ | Maine | 9 Ninth St., S. E. |
| William Henry Russell. | Penn | 1807 H St., N. W. |
| Naohisa Sakaguchi | Japan | 1300 Vermont Ave. |
| Salvador Sanders | D. C. | 538 Eleventh St., S. E. |
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| Andrew J. Schwartz | W. Va. | 16 I St., N. W. |
| Alfred Henry Sefton | D. C. | 329 First St., N. E. |
| Juliet G. Shearer | Penn | 1216 H St., N. W. |
| Ernest Lincoln Shepard | Mich. | 1312 Twelfth St., N. W. |
| Abbie Mills Sisson | Ohio | 440 K St., N. W. |
| John Nisbet Smith | D. C. | 1602 Thirteenth St., N. W. |

| Name. | State. | Address. |
|---|---|---|
| Minnie Rosa Snyder | D. C. | 1011 M St., N. W. |
| Arthur Prince Spear | D. C. | 2050 Fourteenth St., N. W. |
| John S. Stump | D. C. | 1528 I St., N. W. |
| Josephine Sullivan | N. Y. | 939 Virginia Ave., N. W. |
| William Francis Sullivan | D. C. | 930 Delaware Ave., N. E. |
| Alexander Summers | Tenn. | 1223 Thirteenth St., N. W. |
| V. C. Tasker | Md. | 214 Eleventh St., N. E. |
| Charles Newton Thompson | Va. | 943 Virginia Ave., S. W. |
| Juliette H. Thompson | D. C. | 1720 H St., N. W. |
| Frederick Tyers | Kans. | 825 Thirteenth St., N. E. |
| Charles Cornelius Wagner | D. C. | 320 Eighth St., N. E. |
| William Lincoln Webster | D. C. | 21 Virginia Ave., S. W. |
| Williams Welch | S. C. | 1119 I St., N. W. |
| Sara West | Germany | 205 G St., N. W. |
| Mabel Whitcomb | Kans. | 208 T St., N. W. |
| Mrs. A. P. Wood | D. C. | 216 C St., S. E. |

Special students ..... 107
Total ..... 192

# THE GRADUATE SCHOOL.

## Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

CHARLES E. MUNROE, PH. D.,
Dean and Professor of Chemistry.

THE REV. ADONIRAM J. HUNTINGTON, D. D.,
Professor of Greek.

THE REV. SAMUEL M. SHUTE, D. D.,
Emeritus Professor of English.

ANDREW P. MONTAGUE, PH. D.,
Professor of Latin.

J. HOWARD GORE, PH. D.,
Professor of Mathematics.

LEE D. LODGE, PH. D.,
Professor of French and Political Philosophy and Secretary of the Faculty.

D. KERFOOT SHUTE, A. B., M. D.,
Professor of Anatomy.

THEODORE N. GILL, PH. D.,
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CLEVELAND ABBE, A. M.,
Professor of Meteorology.

HERMAN SCHOENFELD, PH. D.,
Professor of German.

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Professor of Philosophy.

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Professor of Solar Physics.

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Professor of Ancient and Church History.

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Professor of Bibliography and Bibliology.

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Professor of Fine Arts as Applied to Architecture.

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Professor of Economics.

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Professor of Mathematical Physics.

EDWARD B. POLLARD, PH. D.,
Professor of English.

CHARLES C. SWISHER, PH. D.,
Professor of American and English History.

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Professor of Civil Engineering.

OTIS T. MASON, PH. D.,
Lecturer on Anthropology.

---

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The School of Graduate Studies was established by order of the Corporation of the University at the annual meeting in 1892, and was opened for the reception of students on Thursday, the 5th of October, 1893. The Fifth Session will begin Wednesday, September the 29th, 1897.

The School will be opened each year with a public address by a member of the Faculty.

## Degrees.

The degrees of Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.), and Doctor of Philosophy (Ph. D.) are conferred on members of the Graduate School under such regulations as may be established from time to time by the Board of Directors; but no graduate student will be regarded as a candidate for any advanced degree until he shall have been admitted to such candidature by the Board of Directors of University Studies.

## The Masters' Degrees.

Persons holding the degree of Bachelor of Arts from institutions of repute are qualified to enter as candidates for the degree of Master of Arts, and those holding the degree of Bachelor of Science for the degree of Master of Science.

Candidates for a Master's degree to be eligible shall pass one year at this University in the advanced study of at least one subject, and shall sustain a satisfactory examination and present an acceptable thesis.

## Engineering Degrees.

Persons holding the degree of Bachelor of Science in Engineering courses, or its equivalent, from institutions of repute are qualified to enter as candidates for the degrees of Civil Engineer, Mechanical Engineer, and Electrical Engineer.

Candidates to be eligible shall pass one year at this University in the advanced study of Engineering subjects, shall sustain a satisfactory examination in these subjects, and shall present a satisfactory thesis.

## Doctors' Degrees.

Persons holding the degree of Master of Science, Master of Arts, or their equivalent, from institutions of repute are qualified to offer themselves as candidates for the degree of Doctor of Philosophy.

Candidates for the degree of Doctor of Philosophy shall offer themselves in three topics for advanced study—one major and two collateral minor subjects. Before being admitted as candidates they shall pass satisfactory examinations in French and German, and shall pay an examination fee of five dollars for the examination in each of those languages.

To be eligible for the degree, candidates who hold Masters' degrees shall pass two years in the study at this University of their major topic and one year in the study of each minor topic; they shall sustain satisfactory examinations upon the three subjects which they may have elected, and they shall present theses, accompanied with an exhaustive bibliography, embodying the results of original research in their major subject, which theses they shall be prepared to defend before a board of experts.

## Fees.

The matriculation fee of candidates for any degree conferred in this School is ten dollars.

The annual fee for instruction and direction of candidates for Masters' degrees is thirty dollars.

The annual fee for instruction and direction of candidates for an Engineering or a Doctor's degree is ninety dollars.

Where laboratory courses are taken, whether for a Master's, an Engineering, or a Doctor's degree, the fee in excess of the above-mentioned fees will be fixed by the Corporation.

The fee for a diploma is ten dollars.

## Commencement.

Candidates for degrees are expected to appear at the Commencement Exercises in academic caps and gowns.

## Theses.

All theses must be presented on the official thesis paper of the University, and they must be typewritten when possible. Official Thesis Paper can be purchased from the Treasurer of the University.

All theses must be presented to the Dean not later than May 20.

All theses, with their accompanying drawings, are the property of the University, and must be deposited in the University archives; but authors are permitted to make copies by applying to the Dean.

Candidates who receive the degree of Doctor of Philosophy are expected

to have their theses printed as early as practicable after graduation and to present fifty copies of the printed thesis to the University through the Dean, to be distributed among learned institutions.

### Final Examinations.

Examinations are conducted under the following rules of the Board of Trustees:

"Examinations for *degrees* shall close at least five weeks before the end of the scholastic year, and the names of all candidates for degrees who have passed a successful examination shall be officially reported, by the Faculty of each, to the President of the Faculties at least three weeks before the date of the commencement."

"No student shall be admitted to an examination for promotion from a lower to a higher class or to a final examination who is in arrears for tuition and whose name has not been certified to the Dean of the School (proposing to hold an examination) by the Treasurer."

Professors and instructors will require students entering examinations to present their cards of admission from the Treasurer before permitting them to be examined.

### Courses of Study in the Graduate School.

The following courses are offered to students in the Graduate School. Candidates for the degree of Doctor of Philosophy will be required to select their major subject from among those enumerated below, but the minor subjects may be chosen from among any offered in the University which may prove acceptable to the Board of Directors.

### English.

PROFESSOR POLLARD.

1. Old English, with special study of Beowulf.
2. Midde English, with critical study of Chaucer.
3. Gothic, with an introduction to Germanic Philology.
4. Research courses in special authors or in special periods and in the philosophic history of English or American literature. These courses may include study of such authors as Shelley, Browning, Tennyson, Carlyle, Arnold, Emerson, Lowell, and such movements as are implied in the terms "Classicism," "Romanticism," "Transcendentalism."

## Greek.

PROFESSOR HUNTINGTON.

To candidates for the Master's Degree one of the following courses is offered:

1. Herodotus and Thucydides.
2. Homer (parts of the Iliad and Odyssey not read in the undergraduate course) and the Lyric Poets.
3. The Attic Orators.

To candidates for the degree of Doctor of Philosophy two of the following courses are proposed:

I. Any two of the courses offered above for the Master's Degree except the one already pursued for that degree.

II. The Tragic Poets.

III. Plato or Aristotle.

Candidates for these degrees are required to pass a satisfactory examination not only in the authors read, but also in Greek Composition, in the Grammar, Philosophy, and Literature of the language, and in Greek History and Antiquities.

## Latin.

PROFESSOR MONTAGUE.

Three courses are offered, and selections are made from those works of the authors named below which are not usually read by undergraduates:

1. Plautus, Cicero, Tacitus.
2. Terence, Livy, Pliny the Younger.
3. Lucretius, Catullus, Seneca, Justinian (Institutes).

In connection with each course the following subjects will be studied:

I. Fragments of Early Latin; Latin Inscriptions (Allen).

II. Roman Versification (Platner).

III. The History of Roman Literature (Cruttwell).

IV. Critical Study of Syntax (Peters; Roby).

V. Latin Composition (Translations from prose authors to be rendered without preparation into Latin).

VI. Monthly Essays in Latin upon the authors and their times.

VII. Papers upon the peculiarities of authors and upon the obligations of modern to ancient writers, and abstracts of works are assigned.

VIII. Review of Roman History; Study of Epochs.

IX. Roman Antiquities (Dr. Smith; Rich).

X. Comparative Philology.

XI. An exhaustive bibliography of each of the authors read.

For Master of Arts, any one course; for Doctor of Philosophy, any two courses.

## Romance Languages.

PROFESSOR RAMSEY.

### FRENCH.

The following three courses are offered in French literature, dealing with the three most prominent epochs of its history prior to the Revolution:

1. Francis I (1515–'47) and the Renaissance.
2. Henry IV (1589–1610).
3. Louis XIV (1643–1715).

In each of these courses the condition of the country at the period in question is studied (largely from French sources), and the important writers are made the subjects of special investigation, the effort throughout being to correlate details and to seek a general tendency of the literary movement.

4. Modern French Syntax and Lexicology.

This course takes up the language at the point where the grammatical text-books leave it. The broader principles of the use and arrangement of words, the expansion and change of their meaning, and the production of new words from material already existing in the language are illustrated by a textual study of the modern masters of French style.

### SPANISH.

1. Spanish Literature of the Eighteenth Century.

A study of the revival of culture following the War of the Spanish Succession. A general acquaintance with the culmination of Spanish literature in the Golden Era, and the subsequent decline is an implied prerequisite.

2. Spanish Poets of the First Half of the Nineteenth Century.

While this course is made as comprehensive as possible, it naturally

centers upon Quintana, Espronceda, Angel de Saavedra, Zorrilla, and Campoamor.

3. Contemporary Spanish Fiction.

A comparative study of Valera, Pereda, Pérez Galdós, and Palacio Valdés, involving the tenets of modern literary criticism in Spain.

## French Philosophy.

PROFESSOR LODGE.

1. (*a.*) A Summary of Greek and Roman Philosophy, with a view to establishing the continuity of French thought.

Weber's Histoire de la Philosophie Européenne.

(*b.*) Germinal Forms of French Philosophy, implicit in the Literature of France before the Seventeenth Century.

(*c.*) Mediæval French Philosophy.

2. Descartes: The Evolution of Cartesianism, and Influence of Descartes on Modern Thought.

3. The Eighteenth Century; Voltaire; Condillac; l'Encyclopédie.

4. The Nineteenth Century; Cousin and Eclecticism; Comte and Positivism; Recent Philosophy; Spiritualistic, Jouffroy, Jules Simon, Janet; Empirical, Ribot.

5. French Theory of the State; La Boétie, Bodin, Voltaire, Rousseau, Montesquieu.

Students taking courses in French speculative philosophy are advised to take also one or more of the courses in German Philosophy offered by Dr. Sterrett.

6. The History of Civilization in France, based upon the works of the standard historians of France, particularly Guizot, Michelet, and Taine. Students in this course must be able to read the French of Villehardouin, Joinville, Froissart, and Commines.

The completion of any one of the above courses will entitle the student to the degree of Master of Arts, and the completion of any two will be accepted as a major subject for the degree of Doctor of Philosophy.

In all these graduate courses constant use will be made of the valuable sources of original research which are accessible to students in the libraries of the several Departments of the Government and of Congress.

## German and Continental History.

PROFESSOR SCHOENFELD.

1. Literary Awakening in Germany in the time of Frederick the Great; critical study of the literary centers, Leipzig, Zürich, Berlin; the literary revolution and the Illuminati; critical investigation of Klopstock's Odes and Wieland's Oberon.

2. History of the Second Classical "Blüteperiode" to the time of Schiller's and Goethe's intimate friendship (1795); detailed investigation into Lessing's Literaturbriefe, Laokoon, and Hamburgische Dramaturgie.

3. Literature of the Renaissance in Germany; influence of the Italian and French Renaissance upon the same (with special reference to Georg Voigt, Janssen, Burckhardt, L. Geiger).

4. History of the Middle Ages from the time of the evolution of European States to the rise of the Hohenstaufen Emperors (selections from the historical sources will be read and interpreted).

5. The Political Awakening in the Eighteenth Century; Causes of the French Revolution and the Napoleonic Empire.

6. The Annihilation and Reconstruction of Prussia (H. von Treitschke); the Building up of the Modern German Empire (H. von Sybel).

The archives of the National Capital will be utilized for purposes of research.

## Ancient and Church History.

PROFESSOR FARQUHAR.

1. Bible History. Frequent references will be made to Oriental and Ancient History.

2. Athens, from Solon to Demosthenes. The leading Greek authors will be carefully considered, and the relations of Athenian to modern civilization will be pointed out.

3. Roman History to the fall of the Western Empire. The more prominent Latin authors will be consulted, and the transition from the ancient to the modern civilization will be followed.

4. History of Christianity. Study of the development of the church,

and its relation to the general progress of mankind. Frequent references will be made to European history at large.

5. History of History. A study of the progress and phases of ancient and modern historical literature.

## American and English History.

### PROFESSOR SWISHER.

#### AMERICAN HISTORY.

1. Era of Exploration and Discovery.—Theories in respect to early settlements and aboriginal population of the North American Continent based upon Archeology, Ethnology, and Tradition.

2. Colonial History.—Social, territorial, and commercial conditions of the English Colonists; Legal and political status of the Colonies as conceived by Parliament; Conflicts with the spirit of Independence developed by the environment of the Colonists; Union achieved in rebellion; Independence in revolution.

3. Constitutional History of the United States.—

(*a.*) The history of the Constitutional principle traced through the early Colonial charters and "the Articles of Confederation" until formulated finally in the Constitution of 1789.

(*b.*) Construction of the Constitution developed under party issues from the first administration of Washington through the period of division and reconstruction.

4. The History of American Diplomacy.—This course undertakes a careful study from original sources of the more important international controversies to which the United States have been a party, from the diplomacy of the Revolution to the report of the Venezuela Commission under President Cleveland. Especial attention will be given to the history of arbitration as a means of settlement in international disputes.

5. The Rise and Fall of the Slave Power.—Slavery as a factor in Colonial history; Impetus given to the system by the Constitution of 1789; Period of annexation and conquest; The causes and consequences of the Mexican war.

6. The History of the American people from 1765 to 1895.

7. The Spanish-American States.

ENGLISH HISTORY.

1. ENGLISH CONSTITUTIONAL HISTORY.—This course seeks to explain the present working of the English political system from a survey of the whole field of English history. It will review in detail—

(*a.*) Early Saxon institutions as they reappear successively after Norman and Tudor absolutism and finally assert themselves under the later Stuarts.

(*b.*) Party government as developed under the Whig oligarchy of the revolution and during the reign of George III until the final triumph of popular government by the Reform act of 1831.

2. HISTORY OF ENGLISH FOREIGN POLICY.—England as a continental power; The policy of Wolsey as realized under Cromwell and William of Orange; Struggle for the balance of power transferred to the seas; England and the Eastern question.

3. England as an Empire; Evolution of the imperial idea; The foundation of the Empire from the Conquest of Jamaica to the Battle of Trafalgar; The Empire as modified by American History; The Political Situation in Canada, Australia, and South Africa.

4. THE ENGLISH IN INDIA.—Condition of the peninsula during the Mogul Empire; Establishment of British Supremacy; The Presidencies and the Native States; Strength and weakness of England's position in the Far East.

5. British History from the Roman settlements to the present time.

6. England during the Nineteenth Century; A more detailed history of the English people from the close of the Napoleonic wars and during the reign of Queen Victoria.

Subjects for individual research and investigation will be arranged at the weekly meetings of the seminaries of American and English history.

## Philosophy.

PROFESSOR STERRETT.

1. Aristotle's Ethics and Politics.
2. The Ethical Theories of Hobbes, Bentham, Mill, and Spencer.
3. The Ethics of Kant and Hegel's Rechtsphilosophie.
4. Kant's Critique of the Pure Reason and his Critique of the Judgment.

5. Hegel's Logik and Philosophie des Geistes.
6. The Philosophy of Religion: Hegel and Pfleiderer.
7. The Philosophy of History.

Any one of these courses may be taken for the Master's degree. Any two of them will constitute a major subject for the Doctor's degree.

Any other desired courses in Ethics and Philosophy may be arranged for with Professor Sterrett.

PROFESSOR HARRIS.

Dr. Harris will coöperate with Dr. Sterrett in carrying out additional courses.

8. Philosophy of History, and
9. The History of Philosophy.

## Political Philosophy.

PROFESSOR LODGE.

1. A comparative study of the political institutions of France, England, and the United States, based upon Guizot, Taine, Freeman, May, Stubbs, Boutmy, Dicey, De Tocqueville, Bryce, C. E. Stevens, Burgess, and Maine.

2. A course in International Law; its genetic idea; its history; its present status, and the specific contributions made by the Government of the United States to the improvement of the law of nations. The work is based upon Wheaton, Calvo, Gallaudet, Lawrence, Hall, and Maine, as well as on the material furnished by the archives of the Department of State.

3. Courses in Political Economy, dealing with the problems of socialism, coöperation, and distribution, based upon the chief French, English, Italian, and German authorities.

4. A course on the Theory of the State, being elaborate studies in fundamental political philosophy, with critical examination of the history of speculation upon this subject from Aristotle to Bluntschli.

5. The Economic Interpretation of History.

## Economics.

PROFESSOR CRAVEN.

1. THE PRINCIPLES OF PUBLIC FINANCE.—The treatment will be historical, theoretical, and statistical. Special attention will be given to modern systems of taxation.

2. POLITICAL SCIENCE.—An historical study of the forms and theories of government, and a comparison of ancient, mediæval, and modern codes, with special reference to the economic effect of each on the people.

3. ADVANCED POLITICAL ECONOMY.—A study of the theories of Economic Society, of Social Progress, and of practical Economic Problems.

## Mathematics.

PROFESSOR GORE.

For the degree of Master of Arts:

1. Higher Plane Curves; Modern Higher Algebra.

2. Mathematical reading: Carr's Synopsis of Pure Mathematics; Láska's Mathematische Formeln-Sammlung; Gore's Factors and Formulas.

3. Advanced Integral Calculus; Theory of Equations.

For the degree of Doctor of Philosophy:

4. Functions: General Theory of Functions, Harkness and Morley; Abelian Functions, Briot, Théorie des Fonctions Abéliennes.

PROFESSOR HODGKINS.

5. Differential equations.

Students in this course meet with the class in Differential Equations in the Scientific School (two hours a week), studying there Johnson's Differential Equations. This will be supplemented by lectures and by the study of Forsyth's Differential Equations (two hours a week).

6. Determinants.

The first part of the year will be given to the mastery of some elementary book on Determinants, such as that by Weld. This will be followed by a study of Scott's Theory of Determinants and of Muir's Theory of Determinants in the Historical Order of its Development.

## Applied Mathematics.

PROFESSOR FREYHOLD.

1. GEOMETRY OF POSITION, developed by projective methods, based on the works of von Staudt, Moebius, Steiner, Poncelet, etc.

2. GRAPHIC STATICS.—This science can be studied with either of two objects in view:

(*a.*) As a part of applied mechanics.

(*b.*) As a part of Analytical Mechanics, based on geometry of position.

3. Investigations in analytical and applied mechanics, hydrodynamics, hydraulics, pneumatics, and strength of materials, based on the works of Weisbach, Church, Ritter, Rankine, Bresse, etc.

## Mathematical Physics.

PROFESSOR CHRISTIE.

For the degree of Doctor of Philosophy:

1. Analytic Mechanics: Minchin, Price, Lagrange, Jacobi, Hamilton.

2. Spherical Harmonics and allied functions, with applications to mathematical physics: Todhunter, Ferrers, Thomson and Tait, Maxwell, Rayleigh, Heine.

3. Hydrodynamics and Tides: Lamb, Lagrange, Laplace, Airy, Thomson, Ferrel, Darwin.

The advanced student will be directed to the original memoirs and assisted in their reading.

The first year in any of these courses may be taken in satisfaction of the requirements for the Master's degree.

## Solar Physics.

PROFESSOR BIGELOW.

Graduate studies, for the degree of Doctor of Philosophy, in Solar Physics in its relation to Meteorology.

1. SOLAR MAGNETISM.—The constitution of the sun, the solar corona, the sun-spots and allied problems in solar physics, giving the grounds for

the recent developments of the theory that the sun is a polarized sphere surrounded by a magnetic field, which is the basis of these phenomena.

2. Cosmical Electricity and Magnetism.—The two fields of force emanating from the sun, their mode of propagation through the æther, the theory of magnetic and electro-magnetic fields as applied to the theories of light, heat, and æther wave-motions. Authors: Maxwell, Poincaré, Fleming, Watson, and Burbury, with references to the recent literature in scientific journals.

3. Terrestrial Magnetism.—The distribution of the permanent magnetism of the earth, its disturbance by the solar fields, magnetic instruments, observatories and methods of observation, magnetic storms, the aurora, and atmospheric electricity, with a history of the progress of the science of each portion. Authors: Gauss, Lloyd, Walker, Stewart, and Gee, the reports of observatories and recent scientific papers.

4. Meteorology.—The thermodynamic theory of the distribution of the atmosphere, the motions of the same, the periodic variations due to the solar fields, and the long-range predictions of the weather. A statement of the latest progress in the development of this branch of physics, together with the allied questions of atmospheric absorption and transmission of energy, including important contributions of physical laboratories bearing on these subjects, will be indicated to the student.

## Theoretical Astronomy.

PROFESSOR FRISBY.

A general knowledge of Descriptive Geometry and of Analytic Mechanics being presupposed, the University offers in this School for the degree of Doctor of Philosophy a reading course in the determination of orbits (with special practice in computing), under the following heads:

1. The Theory of Computing the Parabolic Orbit of a Comet from Three Observations, with an ephemeris. Encke's Memoir on Olbers's Method, Abhandlungen, Erster Band. Books of reference: Watson's Astronomy, Oppolzer's Bahnbestimmung der Cometen und Planeten.

2. The Theory of Computing an Elliptical Orbit, or any Conic Section, from Three or Four Observations. Gauss's Theoria Motûs. Books of reference, as above.

3. An Outline of the Method of Least Squares. Encke, Chauvenet, Brünnow, Watson, Johnson.

4. The Theory of Special Perturbations, with Method of Integrating by Mechanical Quadratures. Encke: Abhandlungen, Zweiter Band und Dritter Band. Books of reference, as above. The method of the variation of the six elements will be first taught. The other methods of Hansen and of rectangular coördinates will follow if needed.

5. The Theory of General Perturbations. Tisserand, Méchanique Céleste. An abstract should here be made for the initiation of the student into this subject. Books of reference: Laplace, Méchanique Céleste; Lagrange, Méchanique Analytique, and Memoirs; Leverrier, Annals of the Paris Observatory; Hansen, Auseinandersetzung; Pontécoulant, Système du Monde, etc.

6. General Spherical Astronomy. Chauvenet's or Brünnow's Spherical Astronomy.

## Astro-Physics.

The University is authorized to announce that one or two students, if possessing special qualifications and prepared by their training to engage in astro-physical research, may be received into the Astro-Physical Observatory connected with the Smithsonian Institution. They will be chiefly employed upon investigations in radiant energy.

## Chemistry.

### PROFESSOR MUNROE.

Courses of graduate study in Chemistry leading to the degree of Master of Arts or of Doctor of Philosophy will be offered to students according to their previous training and special aptitudes. Among the courses projected are certain researches upon explosive substances; analytical methods; the phenomena of deliquescence and efflorescence.

### PROFESSOR CLARKE.

Professor CLARKE offers to properly equipped students a course of research work in the development of his theory of the constitution of the natural silicates, and also courses in the redetermination of atomic weights.

### PROFESSOR WILEY.

Professor WILEY will direct special researches in Agricultural Chemistry, provided that students properly trained in the elements of that science shall present themselves for advanced work.

PROFESSOR DE SCHWEINITZ.

Professor DE SCHWEINITZ offers a course in Bio-Chemistry. This course embraces, in addition to what is ordinarily called physiological chemistry—

1. A study of the products of the growth of germs either in the animal body or upon artificial media.

2. The influence of these substances in causing disease and their relation to immunity.

3. The anti-toxins and methods of their preparation.

## Zoölogy.

PROFESSOR GILL.

A general course of lectures is given on the Principles of Zoölogy, including a consideration of the philosophy, the methods of investigation, and the systems of zoölogy as determined by comparative anatomy.

The lectures are supplemented by work in the laboratory, embracing histology, microtomy, and dissection.

## Anthropology.

DR. MASON.

Candidates for the degree of Doctor of Philosophy in this School are expected to know as much of mineralogy, geology, geography, botany, zoölogy, chemistry, and history as is taught in colleges. Some familiarity with the classical languages is very desirable, and French and German are absolutely essential. Students should have a knowledge of anatomy and physiology. (See these courses in the curriculum of the Medical School.) They should also have pursued a course in psychology, with especial reference to the study of physiology. (See Corcoran Scientific School, Department of Mental and Moral Philosophy.)

The special studies of the School comprise—

1. Study of the races of man.

2. The history of culture (Culturgeschichte) as embodied in the languages, industries, art, social life, philosophy, and mythology of the various peoples of the earth.

3. The history of the past as revealed in the sciences of archæology and folk-lore.

The works of Topinard, Ladd, Brinton, Peschel, Müller, Hæckel, Hovelacque, Keane, Tylor, Spencer, Morgan, Evans, Gomme, Ratzel, and Lang are used as text, with readings in the journals of the Anthropological societies.

## Comparative Osteology and Artistic Anatomy.

PROFESSOR SHUTE.

The special studies in this branch comprise—

1. A brief exposition of the principles of the Evolution of Organic Forms generally; the Vertebrate Form and its Variations, with especial attention to Homologies; the Human Form and its Variations (as affected by occupation, age, sex, disease).

2. Such thoroughness in the descriptions of the several Bones, Joints, and Muscles, and such study of the Superficies of the Living Model as will enable the artist to understand the Statics and Kinetics of the Human Body; Methods of Studying the Proportions of the Human Body, etc.

## Meteorology.

PROFESSOR ABBE.
ASSOCIATE PROFESSOR MARVIN.

Advanced study in Meteorology will be prosecuted under the three following subdivisions:

### I.—EXPERIMENTAL LABORATORY WORK IN METEOROLOGY.

In this field of work the student will investigate the theories of several meteorological instruments and push his study to some decided advance beyond the present state of our knowledge. New apparatus will be devised and constructed and the nature of its errors investigated theoretically and experimentally. Old series of observations, conducted with imperfect apparatus and under unfavorable conditions, will be reduced and corrected in the light of the newest discussions. The laws of such physical phenomena as have to be considered by meteorologists will be investigated by laboratory methods; among these, for example, are ra-

diation, conduction and convection of heat, evaporation; the formation of dew, fog, cloud, rain, snow, hail, and lightning; the minute oscillations of wind and pressure; the pressure and movements of the wind; the absorption of radiations from the sun or earth by the atmosphere; the viscosity of the air, convective resistances, etc.

II.—PRACTICAL METEOROLOGY.

1. Daily weather charts of all nations.
2. International charts of the northern hemisphere.
3. Methods of projection in cartography.
4. Influence of land and ocean on weather and climate.
5. Empirical rules as to the variability and constancy of weather and climate in general, and computations of the index of variability of climate by the law of errors.
6. Weather types and typical weather charts, both for the United States and for the whole globe.
7. Predictions of daily weather by various methods, such as chance, persistency of current conditions and weather types.
8. Special rules for predicting frost, cold waves, rain, snow, wind.
9. Predictions for one, two, and three days.
10. Long-range predictions for seasons and climates.
11. Precise definition of climate by Hinrich's method, and long-range predictions of Hinrich's climatic exponent.
12. Climates in past geological ages.
13. Codification of empiric and rational rules for prediction.
14. Verification of predictions and the laws of chance involved therein.

III.—PHYSICAL AND THEORETICAL METEOROLOGY.

1. Insolation.
2. The absorption, conduction, and radiation of heat by the air, the earth, and the ocean, and the resulting distribution of temperature.
3. The thermo-dynamics of the atmosphere.
4. Convective equilibrium.
5. The general circulation of a dry atmosphere on a rotating globe.
6. The influence of oceans and continents, and the motions of the actual atmosphere.
7. Local cyclones and anti-cyclones.
8. Atmospheric waves and tides.
9. The distribution of fog, cloud, rain, and snow.
10. Optical and electrical phenomena.

## Botany.

PROFESSOR SCRIBNER.

1. Advanced systematic study of the various groups and families of plants.
2. Plant histology and special morphology.
3. Plant distribution and economic plants.

## Geology.

PROFESSOR MERRILL.

This School offers a course of advanced study in Physical Geology, both systematic and applied. Besides a reading knowledge of both French and German, a sufficient knowledge of crystallography and the physics of light is required to enable the student to comprehend and utilize the methods employed in microscopic petrography. The course presupposes a knowledge of determinative mineralogy by both blowpipe and qualitative chemical methods. In case the student selects geology as his principal study, it is advised that a course in quantitative chemical analysis be chosen as one of his minor subjects. It is also desirable that the student devote a certain amount of time to the study of topographic engineering, making himself at least acquainted with the methods of surveying, topographic sketching, and plane-table work, if not proficient therein.

During the first year the student may devote his time largely, if necessary, to perfecting himself in methods; to general work in the laboratory and in the field; to the examination of geological materials; and to familiarizing himself with the literature of the subject. The utility of the various text-books will be recognized, but a very large proportion of the desired knowledge on any subject must be gained from special memoirs and from the current literature as it appears in numerous periodicals. The various sources of information, the most essential lines of work, as well as the most promising fields of investigation, will from time to time be indicated by the instructor.

During the second year it is expected that the student will devote himself to some special investigation which shall serve as the subject of his thesis. Upon the thoroughness with which this subject is handled, the accuracy of observation, and the originality manifested must depend in largest measure his qualification for the desired degree. The course will be

modified to suit individual cases in order that the student may be restricted as little as possible in the exercise of personal taste, originality, and capacity for work. Particularly favorable facilities are offered in this course for work in petrography and in various branches of economic geology, owing to the extensive systematic series which will be found available for study in the exhibition halls of the National Museum. Students in architecture and engineering will also find it to their advantage to devote a portion of their time to the subjects presented in this course, giving particular attention to strength, durability, and the general weathering qualities of natural structural materials, as well as to the relative hardness and toughness of rock-masses, their structure and methods of formation.

### Civil Engineering.

PROFESSOR FREYHOLD.

1. Advanced course in the Graphic Statics of Building Construction.

2. The theory of suspension, continuous, cantilever, and braced arch bridges, with a more complete course in the design of plate girders, riveted and pin connected bridges, with working drawings and estimates.

3. Advanced course in Construction—the theory and designing of retaining walls, masonry arches, and dams.

4. A thesis the subject of which is to be selected by the student with the approval of the professor of Civil Engineering.

### Mechanical Engineering.

PROFESSOR ZOPKE.
ASSOCIATE PROFESSOR FARWELL.

1. Summary of Mechanical Engineering. Two hours.

2. Thermodynamics and Application to Theory of Hot-air, Gas, Gasoline, and Steam Engines. Three hours.

3. Construction of Single and Compound Steam-engines. Four hours.

4. Designing of Steam-engines as Constructive Exercises to 3. Four hours.

5. Boiler Construction. Two hours, one term.

6. Designing of Boilers. Two hours, one term.

7. Laboratory work. Efficiency tests of engines, boilers, condensers, pumps, etc. (Laboratory instruction will be given when the Machine Laboratory is completely organized.)

8. Critical Inspection of Power-plants.
9. Hydraulic Machinery. Two hours, one term.
10. Designing of Hydraulic Machinery. Two hours, one term.
11. Kinematics. Three hours.
12. Construction of Plants. Two hours, one term.
13. Designing of Plants. Four hours, one term.
14. Multiple-expansion Steam-engines and Steam-engines for Special Purposes. Four hours, one term.
15. Designing of Steam-Engines as Constructive Exercises to 14. Four hours, one term.
16. Machine Tools. Three hours.
17. Designing of Machine Tools. Two hours, one term.
18. Theory of Electro mechanical Constructions. Four hours.
19. Designing of Electro-mechanical Constructions. Four hours.

## Electrical Engineering.

PROFESSOR WOLFF.

Students having obtained the degree of Bachelor of Science in Electrical Engineering (Course III) or its equivalent may receive the degree of Electrical Engineer upon satisfactorily completing a course of one year in the Graduate School, embracing the following studies:

1. Advanced laboratory work.

2. Designing of Dynamo-electric Machinery.

3. Transmission of Electrical Energy.

4. A course of reading of engineering and electrical journals and weekly meetings for the discussion of engineering and electrical subjects.

5. Thesis work, embracing the complete project of an electrical plant for some municipal or industrial purpose, with drawings, designs, and calculations of the plant, machinery, electric devices, with a full description, report, and estimate of cost.

Concomitant studies in Mechanical Engineering and Advanced Physics are required. Students are recommended to take besides Higher Mathematics, German, French, and Chemistry.

### Architecture.

PROFESSOR HORNBLOWER.

PROFESSOR AMATEIS.

Classical styles; Interior architecture and decoration; Construction of buildings.

Thesis must embody the results of the complete study of a structure of elaborate and ornamental character.

### Bibliography and Bibliology.

PROFESSOR BOLTON.

Professor BOLTON will exercise a general supervision over the bibliographic work done in this School and will advise students as to the best methods of work and the accepted methods of presentation of results.

Unusual opportunities are afforded students in this subject in the meetings of the Washington Library Association, which are held at stated intervals at the Columbian University.

### Doctorate Disputation.

The defense of the theses required of candidates for the degree of Doctor of Philosophy was held publicly in the Hall of the University June 3, 1896. The candidates who successfully defended their theses, the title of their theses, and the members of the boards attacking the same were as follows:

Candidate: EDWARD CLARK HUDSON, A. B., A. M.

Thesis: Investigation into the Use of the Genitive Case in Greek.

Experts: Rev. Prof. CARL E. GRAMMER, Prof. Dr. DANIEL QUINN, Dr. NATHAN S. LINCOLN.

Candidate: JAMES STEPHEN LEMON, B. A., M. S.

Thesis: The Skin considered as an Organ of Sensation.

Experts: Dr. ARTHUR MACDONALD, Prof. LESTER F. WARD, Dr. THOMAS M. MCLAUGHLIN.

## ADMITTED AS CANDIDATES FOR DEGREES.

### For the Degree of Master of Science.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| William Frederic Biehl | Political Philosopy | Ohio | 1820 9th St., N. W. |
| Joseph William Fell<br>B. S., Trinity College, 1889. | Chemistry | New York | Document Office. |
| Anna Sarah Hazelton<br>B. S., Columbian University, 1892. | Mathematics | Dist. of Columbia | 1215 9th St., N. W. |
| Stephen C. Miller<br>M. D., Columbian University, 1884.<br>Phar. D., Howard University, 1888. | Mineralogy | Minnesota | 1324 N. Y. Ave., N. W. |
| Jesse Pawling, Jr.<br>A. B., 1888; A. M., 1893, Philadelphia High School.<br>B. S., Cornell University, 1893. | Mathematics | Pennsylvania | U. S. Coast and Geodetic Survey. |
| Anne Lewis Pierce<br>B. S., Columbian University, 1893. | Political Philosophy | Dist. of Columbia | 1328 11th St., N. W. |
| Frank Darius Simons<br>A. B., University of Indiana, 1895. | Chemistry | | 203 Seaton St., N. E. |
| Edward Warren Vaill, Jr.<br>S. B. (Mech. Eng.), 1893; S. B. (Elec. Eng.), 1894, Worcester Polytechnic School. | Mathematical Physics | Massachusetts | U. S. Patent Office. |
| Edward Mitchell Van Harlingen<br>B. S., Ohio State University, 1883. | Chemistry | Nevada | The Lincoln. |
| Thomas Alfred Witherspoon<br>Graduate U. S. Naval Academy, 1885. | Chemistry | Tennessee | U. S. Patent Office. |

## For the Degree of Master of Arts.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Harry Hampton Donnally ..... B. S., Columbian University, 1896. | Political Philosophy.... | Virginia..... .... | Kendall Green. |
| Mary Katherine Chapin..... A. B., Columbian University, 1896. | Political Philosophy.... | Dist. of Columbia.. | 1814 Linden St., Le Droit Park. |
| Nancy Jacobs McKnight..... A. B., Wellesley College, 1887. | Mathematics..... ..... | Dist. of Columbia.. | 2032 16th St., N. W. |
| George Washington Peterson..... B. A., University of Minnesota, 1893. | Latin..... | Minnesota..... | 1012 13th St., N. W. |
| Grace Coburn Smith..... A. B., Colby University, 1893. | German..... | Maine ..... | 912 15th St., N. W. |
| George E. T. Stevenson..... | Political Philosophy.... | New York..... | East Washington Hts. |
| Hugh Thomas Stevenson..... | Sociology..... | Illinois..... ..... | 40 Grant St., Anacostia. |
| Evander McIver Sweet, Jr..... A. B., Southwestern University, 1895. | English..... | Texas..... | 811 K St., N. W. |
| Frederick Cogswell Waite..... .. .. A. B., University of Minnesota, 1890. | Statistics..... | Minnesota..... | 311 East Capitol St. |

## For the Degree of Doctor of Philosophy.

| NAME. | TOPIC. | RESIDENCE. | ADDRESS. |
|---|---|---|---|
| Victor King Chestnut.....<br>B. S., University of California, 1890. | Major, Plant Chemistry; Minors, Organic Chemistry, Botany. | California..... | 1104 P St., N. W. |
| Marion Dorset.....<br>B. S., University of Tennessee, 1893.<br>M. D., Columbian University, 1896. | Major, Bio-Chemistry; Minors, Pathology, Bacteriology. | Pennsylvania ..... | 1120 N. Y. Ave., N. W. |
| Oliver Lanard Fassig.....<br>B. S., Ohio State University, 1892. | Major, Meteorology; Minors, Solar Physics, Laboratory Physics. | Ohio..... | U. S. Weather Bureau. |
| Revere Randolph Gurley.....<br>M. D., Columbian University, 1884. | Major, Zoölogy; Minors, Botany, Geology. | Virginia ..... | 71 N. Y. Ave., N. E. |
| William Perry Hay.....<br>B. S., 1891; M. S., 1892, Butler University. | Major, Zoölogy; Minors, Botany, Geology. | Dist. of Columbia.. | 478 O St., N. W. |
| Albert Mayer Hilliker.....<br>B. D., Seabury Divinity School, 1890. | Major, Philosophy; Minors, History, Ethics. | Minnesota ..... | 230 12th St., S. W. |
| Charles Arthur Hollick.....<br>Ph. B., Columbia College, 1879. | Major, Palæobotany; Minors, Botany, Mineralogy. | New York..... | U. S. Geological Survey. |
| John Scott Johnson .....<br>B. S., 1893; A. M., 1894, Columbian University. | Major, Philosophy; Minors, Economics; History. | Texas..... | 1460 Corcoran St., N. W. |
| Joseph Strayer Mills.....<br>A. B., 1890 A. M., 1893, Western Maryland College. | Major, Chemistry; Minors, Mineralogy, Physics. | Maryland. . .... | Central High School. |

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|---|---|---|---|
| Thomas James Murray.....<br>B. A., 1889; M. A., 1890, St. Mary's College, Baltimore.<br>LL. B., Georgetown University, 1893. | Major, Continental History; Minors, Philosophy VIII, History III. | Dist. of Columbia.. | 423 N. Y. Ave., N. W. |
| Edwin Barnes Niver.....<br>A. B., Brown University, 1893.<br>B. D., Episcopal Theological School, Cambridge, Massachusetts.<br>A. M., Columbian University, 1895. | Major, Philosophy; Minors, Ethics I and II. | Maryland..... | 1332 R St., N. W. |
| Henry Rogers Pyne.....<br>A. B., 1893; A. M., 1894, Columbian University. | Major, Greek; Minors, Latin, French. | Maine..... | 1702 S St., N. W. |
| Frederick Reed.....<br>A. B., 1881; LL. B., 1886, Harvard University. | Major, Psychology; Minors, Biology, Philosophy. | Pennsylvania..... | Chevy Chase. |
| John Merriam Reynolds.....<br>B. E., 1867; M. E., 1869, Pennsylvania State Normal School.<br>A. M., Columbian University, 1895. | Major, Philosophy; Minors, Continental History, Political Philosophy. | Pennsylvania..... | 1309 Conn. Ave., N. W. |
| Timothy William Stanton.....<br>B. S., 1883; M. S., 1895, University of Colorado. | Major, Palæontology; Minors, Zoölogy, Mineralogy. | Colorado..... | 205 13th St., N. W. |
| Alexander Summers.....<br>B. A., 1876; M. A., 1893, University of Tennessee. | Major, Political Philosophy; Minors, Philosophy VIII, Comparative Politics. | Tennessee..... | Bureau of Education. |
| Cabell Whitehead.....<br>B. M., Lehigh University, 1885.<br>M. S., Columbian University, 1895. | Major, Chemistry; Minors, Mineralogy, Metallurgy. | Idaho..... | 1114 N. H. Ave., N. W. |

Candidates for degrees, 36.

# THE SUMMER SCHOOL.

## THE FACULTY.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

HOWARD L. HODGKINS, PH. D.,
Director.

WILLIAM A. MAURY, LL. D.,
Professor of Law.

HERMANN SCHOENFELD, PH. D.,
Professor of German and of Continental History.

ANDREW F. CRAVEN, PH. D.,
Professor of Economics.

F. LAMSON-SCRIBNER, B. S.,
Professor of Botany.

FRANK A. WOLFF, PH. D.,
Professor of Physics.

MARATHON MONTROSE RAMSEY, A. M.,
Professor of Romance Languages and Secretary of the Faculty.

ELMER S. FARWELL, C. E.,
Associate Professor of Mechanical Engineering.

HENRY R. PYNE, A. M.,
Assistant Professor of Greek and Latin.

H. GRANT HODGKINS, A. B.,
Instructor in Mathematics.

PETER FIREMAN, PH. D.,
Instructor in Chemistry.

EDWARD A. MUIR,
Instructor in Mechanical Drawing and Photography.

EMIL H. MEYER,
Instructor in Fine Arts.

E. HILTON JACKSON, A. M., LL. M.,
Instructor in Law and in Law-Latin.

ALBERT F. FLINT, LL. M.,
Instructor in Law.

THOMAS A. WILLIAMS, A. M.,
Assistant in Botany.

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## COURSES OF INSTRUCTION.

### Botany.

PROFESSOR LAMSON-SCRIBNER AND MR. WILLIAMS.

Gross anatomy or organography, general morphology, and systematic botany by lectures, recitations, and studies in the field. The field-work will consist of the collection of specimens representing the more general groups of the vegetable kingdom and their preparation for the herbarium. Special studies of grasses and the plants of the District of Columbia will form a feature of the course. Three hours a week.

### Chemistry.

DR. FIREMAN.

1. Introduction to the study of Chemistry.
2. A rapid review of Inorganic Chemistry.
3. A rapid review of Organic Chemistry.
4. A series of experiments on the fundamental principles of Chemistry. A laboratory course. Nine hours a week.
5. Organic preparations. A laboratory course. Eighteen hours a week.

It is believed that the above courses can be taken with a fair degree of thoroughness during the summer session.

Additional laboratory courses in particular branches of analytical chemistry will be arranged to meet the desires of applicants.

In addition to the regular fee for course 4, each student will be charged $2.50 for materials.

The fee for course 5 is $20. The chemicals will be charged extra, but the preparations will be so selected that the total expense for chemicals will not exceed $10.

## Continental History.

PROFESSOR SCHOENFELD.

1. History of the Middle Ages from the Migration of Peoples. Two hours a week.

2. The Napoleonic Era. One hour a week.

3. The Building up of the Modern German Empire. Two hours a week.

## Economics.

PROFESSOR CRAVEN.

1. Finance. Three hours a week.

The Science of Money and Credit, with especial reference to present conditions in the financial world.—Lectures, notes, collateral reading from Walker, Macleod, Jevons, White, and others.

2. Politics. Three hours a week.

Fundamental principles of government by the people; organization and functions of the Township, County, City, and State.—Diagrams, lectures, notes, readings, and reviews.

3. Political Economy. Three hours a week.

Short text-book studies from Adam Smith, Ricardo, Mill, Gregory, and Marshall. A complete outline of Political Economy will be given.

4. International Law. Three hours a week.

Sources, purposes, and *economic* effects and benefits of International Law. Texts: Woolsey and Gallaudet.

The particular attention of students of law is called to courses 2 and 4.

## Fine Arts.

MR. MEYER.

1. Sketching from Nature. Landscapes in oil, water color, pencil, charcoal, and wash. Monday, Wednesday, and Friday from 2 to 6 p. m.

This course will be especially adapted to the needs of art students, and of teachers in public and private schools.

2. Free-hand Drawing. To be given both as a general course and as applied to civil engineering and architecture. Four hours a week.

Other courses in drawing and art will be arranged to suit the wishes of individuals and classes.

## German.

PROFESSOR SCHOENFELD.

1. Training in elementary grammar; systematic exercises in conversation; readings from the best prosaists. Three hours a week.

2. German syntax; conversation; readings from novels and the classics; composition. Three hours a week.

3. An advanced course in German literature; Kluge's *Deutsche Literatur-geschichte*, modern period; interpretation of Lessing, Goethe, Schiller (especially for teachers). Three hours a week.

## Greek.

PROFESSOR PYNE.

1. A course for those students who desire to begin Greek. White's Beginner's Greek Book. Three hours a week.

2. A rapid review of White's Beginner's Greek Book, together with translation of Anabasis, Book I, Chapters I–V. This course is designed especially for those students who desire to review their first year's work. Three hours a week.

3. Anabasis, Homer, Herodotus or Lysias; grammar, exercises. Courses will be given in one or more of these authors on application of a sufficient number of students. Especial attention will be given to translation and constructions. Three hours a week.

## Latin.

PROFESSOR PYNE.

1. A course for those desiring an introduction to the language. Collar and Daniell's First Latin Book. Three hours a week.

2. A rapid review of the First Latin Book. A course designed for those desiring a thorough and rapid review of their first year's work. Three hours a week.

3. Cæsar; grammar, exercises. Especial emphasis laid on translation and constructions. Three hours a week.

4. Cicero, Vergil, Livy, Ovid, etc. Courses will be given in these authors similar to course 3, on application of a sufficient number of students. Three hours a week.

## Law.

PROFESSOR MAURY.
MR. JACKSON.
MR. FLINT.

1. This course will comprise a general treatment of bills and notes, partnership, principal and agent, wills, personal property, and criminal law. Four hours a week.

While this course is specially designed for beginners, it will be found profitable, also, to those who take course 2, whether they be students of law or practitioners.

2. The subject treated in this course will be real property, the text-book used being the second book of Blackstone's Commentaries. Four hours a week.

This course is designed both for students of law and for graduates in law who desire to review this most important subject.

3. This course will comprise a general treatment of Common Law Pleading and Evidence. If time will permit, leading heads of Equity Jurisprudence will also be considered. It will be of especial value as a preparation for the detailed work in these subjects in the Senior Course in the Law School, and will be found useful also as a review course. Four hours a week.

These courses have been arranged because of the desire expressed by many students of law to prosecute their legal studies during the summer months. The work, however, is not designed alone for these, as a special course has been arranged for those who are to begin the study of law, and in outlining the courses the fact has been kept in mind constantly that there is an ever-increasing number who desire to become acquainted with the elementary and underlying principles of law as an indispensable part of a liberal or business education.

The instruction is to be given almost exclusively by "quizzing," as it is believed that by this method the progress of the students will be most rapid, and the best results accomplished, in view of the limited time of the Summer course.

### Law-Latin.

MR. JACKSON.

This course is intended for the benefit of law students and members of the profession who have not a working knowledge of Latin, and is designed to make them familiar with the essential principles of the language while at the same time employing as the material of instruction those maxims and phrases met with daily in practice and in the leading text-books.

A careful selection of four hundred leading maxims has been made, and these have been divided into thirty-two lessons, conducting the student by a gradual and easy process from the most elementary principles of etymology to the more involved construction of syntax.

The legal bearing of every maxim or phrase will be fully set forth, nor can this feature of the work be readily overestimated, as it is well known that maxims of law remain always "unerring principles of truth, in accordance with which all laws now and hereafter to be made will be interpreted."

Experience gained from classes already in operation warrants the conclusion that the thorough student will become a master of the English method of pronunciation, and, by reason of the constant use of these maxims in the class-room, will have at his tongue's end information that may be considered an almost indispensable part of the equipment of every successful practitioner.

Mr. Jackson has in course of preparation and expects to have published in time for use in the class a text-book styled Law-Latin, which in the hands of the student will greatly facilitate and enhance the value of the work. Five times a week.

## Mathematics.

MR. HODGKINS.

1. College Algebra, beginning at quadratic equations. Four hours a week.
2. Solid Geometry. Four hours a week.
3. Plane Trigonometry. Four hours a week.
4. Analytic Geometry. Four hours a week.
5. Elementary Calculus. Four hours a week.

Classes in Elementary Algebra and Plane Geometry will be formed if desired.

## Mechanical Drawing.

MR. MUIR.

1. A course in Geometrical Problems to teach the beginner the accurate use of his instruments and to acquaint him with the principles and conventional methods of Mechanical Drawing.
2. A course in Patent Office Drawing.
3. A course in the Elements of Projection for beginners.
4. A course in " Working Drawings " of Machine Details.

A number of machine parts of the latest design will be found in the drawing-room. The student is expected to make complete working drawings of these parts, so that he may become familiar with their construction.

5. A course in Working Drawings of Building Details, wood joints, partitions, flooring, trusses, etc.

## Mechanical Engineering.

PROFESSOR FARWELL.

1. Thermodynamics. Four hours a week.

A study of elementary principles and their application to heat engines.

2. Elements of Mechanism. Three hours a week.

A study of the fundamental principles of Kinematics and Machine Elements. Particular attention will be given to the solution of original problems on trains of elements for the transmission and transformation of motion.

3. Mechanics of Machinery. Three hours a week and constructive exercises.

A course in Graphical Mechanics. The course will begin with a study of the general theory of Graphics, the graphical representation of quantities, and of arithmetical operations thereon. The principles of Graphics will then be applied to the solution of original problems in Statics, Dynamics, and Kinematics of Machinery.

4. Elements of Descriptive Geometry and Projections. Three hours a week and constructive exercises.

An introductory course requiring no preparation beyond plane geometry.

5. Theory of Perspective, and Shades and Shadows. Three hours a week and constructive exercises.

Requires no preparation and is especially adapted to students of architecture and art.

All courses are especially prepared for the student of general science or as an introduction to the advanced subjects. Advanced or technical courses in the above or allied subjects may be arranged upon application.

## Photography.

MR. MUIR.

An elementary course in Practical Photography, its industrial and technical applications to the various branches of science and engineering. Four hours a week.

Instruction will be given in the class-room, the field, and the dark room. The work will start at the beginning of the subject, giving all the detail steps necessary for obtaining the best results. Some photographic experiments with the "Roentgen rays" will be given.

In addition to the regular fee for this course, there will be a small charge for materials.

## Physics.

PROFESSOR WOLFF.

1. General Physics. Three lectures a week.

The principles of Physics as illustrated by experiment. This course is intended for students without special preparation.

2. Laboratory Work.

A laboratory course for beginners in the fundamental measurements in mechanics, sound, heat, light, electricity, and magnetism. The laboratory will be open daily from 9 a. m. until 8 p. m.

Students in the Corcoran Scientific School taking this course will receive credit for the work done, or more advanced work may be substituted in the regular course.

Fee for either course, $10; for both courses, $15.

Arrangements will be made for additional courses in advanced Physics and laboratory methods on request of a sufficient number of properly equipped students.

## Romance Languages.

PROFESSOR RAMSEY.

### French.

1. Elementary course, for beginners. Three hours a week.

A course designed to give careful drill in French pronunciation, and to lay a firm grammatical foundation for subsequent study.

Text-books: Grandgent's Short French Grammar and Paul Bercy, *La langue française.*

2. French Syntax. Two hours a week.

Practical treatment of the salient peculiarities of French syntax, with exercises in French composition.

Text-books: Howard's Aids to French Composition and any good reference grammar.

3. *Causeries sur les événements quotidiens.* Two hours a week.

Conversation on current topics, based upon a perusal of the French press. (No English spoken.)

4. The French dramatists of the present century. Two hours a week.

### Spanish.

1. Elementary course (similar to course 1 in French). Three hours a week.

Text-book: Ramsey's Text-book of Modern Spanish.

2. Practice in conversation and newspaper reading. (No English spoken.) Two hours a week.

3. Spanish literary style, the principles of criticism, syntax, and rhetoric. Two hours a week.

4. Spanish literature. Two hours a week.

Twelve lectures, giving an account of the best that has been written in Spanish, from the *Poema del Cid* to the present day.

ITALIAN.

1. Elementary course, for beginners. Three hours a week.

This course is intended to take the student through the rudiments of the grammar and enable him to read easy prose.

2. Italian phonetics. Two hours a week.

A course offering thorough drill in the quality and quantity of Italian voice sounds, pronunciation, and expression. Designed especially for students of vocal music.

Text-book: Grandgent's Italian Grammar and Composition.

## Tuition Fees.

The fee for one or more courses in one Department, exclusive of laboratory courses, is ten dollars. The payment of twenty dollars admits the student to all except the laboratory courses, for which extra fees are charged, according to the announcements made under such courses. All fees are payable in advance at the time of registration.

## General Statement.

Instruction will begin on Monday, June 21, and continue until July 31. All courses are open to students of both sexes. Only those courses will be given for which a sufficient number of applicants present themselves.

The classes will meet in the evening, between 4 and 8 o'clock. This will permit persons employed in Washington to avail themselves of the advantages offered, and will give to those coming from a distance the entire day in which to visit the Government buildings, libraries, and museums, to study, or to do extra work in the laboratories.

The other Schools of the University will give proper credit for work done in the Summer School to students who are now or who may be hereafter enrolled in them.

The attention of teachers is called to the opportunities here offered for continuing their studies under the direction of university instructors.

Every effort will be made to suit the work to their requirements, and in the laboratory and field courses, especially, individual needs will be met.

Present and prospective students of law and medicine will find a number of courses that will be of particular value, both for review and broadening of work done and for preparation for their regular professional studies.

The University buildings, laboratories, and library will be open daily, Sunday excepted, from 9 a. m. until 8 p. m.

During the year 1896–1897 desirable rooms, convenient to the University buildings, have been offered at $5 to $10 per month, and good board has been offered at $15 to $20 per month. Lists of persons offering rooms and board can be obtained upon application at the University.

For further information regarding the Summer School, application may be made to

HOWARD L. HODGKINS, *Director*,
*The Columbian University, Washington, D. C.*

## Students in the Summer School, 1896.

| Name. | State. | Address. |
|---|---|---|
| Julius L. Arntzen | Mo. | Patent Office. |
| George Wilson Baker | D. C. | 1745 Q Street, N. W. |
| W. F. Biehl | Ohio | 1820 Ninth Street, N. W. |
| Earl Biscoe | D. C. | 813 Twenty-first Street, N. W. |
| Wymond H. Bradbury | N. J | 808 I Street, N. W. |
| Martha M. Brewer | Mass. | Lanham, Maryland. |
| Everett Heath Brosius | D. C. | 2420 Fourteenth Street, N. W. |
| Charles F. Burnside | D. C. | U. S. Treasury. |
| John M. Caffery | La. | 1334 Nineteenth Street, N. W. |
| L. M. Cleveland | D. C. | Washington, D. C. |
| Thomas L. Costigan | Del. | 202 Arthur Place, N. W. |
| Z. Lewis Dalby | Va. | 914 Twelfth Street, N. W. |
| John Davies | D. C. | 309 I Street, S. E. |
| John W. Ewing | Ill. | 106 Fifth Street, N. E. |
| B. F. Gebest | D. C. | 1327 F Street, N. W. |
| Clarence Gerry | D. C. | Sixth and Seaton Streets, N. E. |
| Irene Gibson | Mo. | 1446 Staughton Street, N. W. |
| Anna L. Goodheart | Tenn. | 636 L Street, N. E. |
| John T. Harris | Mo. | 1220 Eleventh Street, N. W. |
| Cornell S. Hawley | N. Y. | The Varnum. |

| Name. | State. | Address. |
|---|---|---|
| Roy Bagley Hayes | Wis. | 502 D Street, N. E. |
| William Hindrick | D. C. | 319 Four-and-a-half Street, N. W. |
| Lester M. Holt | Wis. | 433 M Street, N. W. |
| D. K. Jackson | Va. | 302 East Capitol Street. |
| J. B. Lichty | Ill. | 458 C Street, N. W. |
| Margaret C. Lohr | D. C. | 759 Eleventh Street, S. E. |
| Lillian Long | N. C. | 322 Spruce Street, N. W. |
| Edwin K. Lundy, Jr | D. C. | 808 North Carolina Avenue, S. E. |
| Paul Bishop McConville | Ohio | 1921 K Street, N. W. |
| M. J. McIntee | Mass | 819 Thirteenth Street, N. W. |
| Herbert W. Marean | D. C. | Brookland, D. C. |
| Charles M. Merwin | D. C. | 917 Westminster Street, N. W. |
| Sandol Milliken | Tenn. | 1012 Twelfth Street, N. W. |
| Charles H. Pierce | Tenn. | 1407 Sixth Street, N. W. |
| Edward George Portner | Va. | 1104 Vermont Avenue, N. W. |
| G. B. Puga | Mexico | 1111 Eleventh Street, N. W. |
| W. A. Quinn | D. C. | 415 Second Street, N. E. |
| G. I. Raybold | D. C. | 820 North Carolina Avenue, S. E. |
| Mary Meade Raborg | D. C. | 1643 Nineteenth Street, N. W. |
| Fred. D. Riggles | Va. | 2121 G Street, N. W. |
| William H. Russell | Pa. | 2313 Washington Circle, N. W. |
| Percy Saint | La. | 1334 Nineteenth Street, N. W. |
| Guy L. Seaman | Iowa | 1119 I Street, N. W. |
| W. Morgan Shuster | D. C. | 1408 Fifteenth Street, N. W. |
| Hugh T. Stevenson | D. C. | Anacostia, D. C. |
| W. G. Stuart | D. C. | 1244 Eighth Street, N. W. |
| Vina A. Sweeny | Pa. | 1601 New Hampshire Ave., N. W. |
| A. R. Thornton | Ind. | 206 Indiana Avenue, N. W. |
| Mrs. W. E. Thurston | N. C. | High Point, North Carolina. |
| Philip Tindall | D. C. | 2103 California Avenue, N. W. |
| P. C. Treanor | N. Y. | 328 Pennsylvania Avenue, S. E. |
| Frederick Tyers | Kansas | 825 Thirteenth St., N. E. |
| Ferdinand C. Walsh | D. C. | 1504 H Street, N. W. |
| Marie Whalgren | D. C. | 1129 Fourteenth Street, N. W. |
| Herbert A. White, U. S. A. | | Fort Myer, Virginia. |
| W. G. Worrell | Va. | U. S. Treasury. |
| K. Lulalia Yancey | Va. | South Boston, Virginia. |

Total ..... 57

# THE LAW SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
PRESIDENT.

THE HON. WALTER S. COX, LL. D., DEAN,
(Associate Justice of the Supreme Court of the District of Columbia)
Professor of the Law of Real Property, of Contracts, of Crimes and Misdemeanors, and of Commercial Paper.

THE HON. JOHN M. HARLAN, LL. D.,
(Associate Justice of the Supreme Court of the United States)
Professor of the Constitutional Jurisprudence of the United States, of the Law of Domestic Relations, of Torts, and of Personal Property.

THE HON. WILLIAM A. MAURY, LL. D.,
(Sometime Assistant Attorney General of the United States)
Professor of Equity Jurisprudence, of Common Law and Equity Pleading, of the Law of Evidence, and of the Jurisdiction and Practice of the Federal Courts.

THE HON. DAVID J. BREWER, LL. D.,
(Associate Justice of the Supreme Court of the United States)
Professor of the Law of Corporations.

HENRY E. DAVIS, LL. M.,
(Attorney of the District of Columbia)
Lecturer on the History of Law.

WILLIAM F. MATTINGLY, ESQ.,
(of the Washington Bar)
Lecturer on Practical Commercial Law.

THE HON. BENJAMIN BUTTERWORTH,
(United States Commissioner of Patents)
Professor of the Law of Patents.

WILLIAM G. JOHNSON, LL. M.,
(of the Washington Bar)
Professor of Legal Catechetics, Common-law Practice, and Judge of the Moot Court.

LEE DAVIS LODGE, PH. D.,
Professor of Public and Private International Law and of Politics.

MELVILLE CHURCH, LL. M.,
Professor of the Law of Patents.

TRACY LILLIE JEFFORDS, PH. B., LL. B.,
(Sometime Assistant Attorney of the District of Columbia)
Professor of Criminal Law and Medical Jurisprudence.

**Court of Appeals.**

WILLIAM F. MATTINGLY, *Chief Justice.*
HENRY E. DAVIS,
CHARLES W. NEEDHAM, } *Associate Justices.*

The sessions of the Law School of the Columbian University are held in the University Building, situated on the southeast corner of Fifteenth and H streets, only a few steps from the Executive Mansion and the Executive Departments of the Government.

**Admission.**

The course of study is adapted to graduates of colleges and to any who have attained a competent discipline of their mental powers. No one is admitted as a candidate for graduation in the Senior Class who has not spent one year either at this or some other law school, or performed a corresponding amount of study under the direction of a member of the bar. Candidates of the latter kind for admission to the Senior Class may be required to sustain a satisfactory examination upon the studies of the Junior Year.

**Matriculation.**

No fee is charged for matriculation, but the fee for at least one month's tuition must be paid in advance on registration. The register will be open

for the enrollment of students on the first day of September. Seats in the Lecture Hall will be assigned to students in the order of their registration, but seats so assigned will be forfeited on the non-payment of monthly dues.

### Sessions.

The entire course of study in the undergraduate department embraces two years. The next annual session will begin on Wednesday, September 29, 1897, and end on June 1, 1898. The exercises of the School begin daily at 6 o'clock p. m., which enables the University to profit by the services of eminent jurists engaged in the public service at Washington, and gives to students the entire day for study, for reading in the law libraries, or for attending the several Courts at the Federal Capital, besides permitting young men engaged in office duties to enjoy the facilities of the School.

### Courses of Instruction.

The School has four classes—a Junior and a Senior in the undergraduate department, a graduate Class in Practice, and a Class in Patent Law and Patent Law Practice.

### Junior Class.

PROFESSOR COX

(Associate Justice of the Supreme Court of the District of Columbia).

Mr. Justice Cox, aiming to secure for the students of the Junior Class as thorough and accurate a knowledge of the law of real and personal property, of contracts, and of crimes and misdemeanors as it is possible for them to attain within the brief period of a scholastic year, places in their hands successively Blackstone's Commentaries, Kent's Commentaries, Parsons on Contracts, and Byles on Bills, as text-books. He meets the class on Tuesday, Thursday, and Saturday of each week. For each meeting a lesson of moderate length is assigned, and the lesson for the evening forms the subject of his lecture. In his lecture he reviews, illustrates, and simplifies, as far as he can, the teachings of the lesson, shows how far and in what particulars the law contained in it has been repealed or modified, either by English or American statutes or by the American common law, and tries to remove the doubts and uncertainties that are apt to trouble and perplex those entering for the first time upon the study

of law; and to insure a careful reading of the lesson and proper attention to his lecture, he, at the close of the latter, questions the class upon the important points of each.

The students in both the Junior and the Senior classes are required to attend this course.

### Domestic Relations, Personal Property, Commercial Paper, and Torts.

PROFESSOR HARLAN

(Associate Justice of the Supreme Court of the United States).

Mr. Justice HARLAN gives a course of lectures on each of these subjects, meeting the classes on Monday and Wednesday evenings, and following the general order and arrangement pursued respectively in Browne on Domestic Relations, Smith on Personal Property, and Pollock on Torts; there is no mere study of these as text-books. The purpose is rather to take leading cases on the various topics, and by discussion of those cases to explain, illustrate, and make distinct the rules and principles of these different departments of law. He also calls upon the students to prepare and return to him criticisms on some of the cases he discusses, and thus invites the active effort of all to extract from the opinions the precise matters decided and the reasons therefor. In this way he strives to counteract the tendency to become mere case lawyers and turns the attention to the matter of fundamental principles. This course extends through the whole scholastic year, and the attendance of both the Senior and the Junior classes is required.

### The Senior Class.

PROFESSOR MAURY

(Sometime Assistant Attorney General of the United States).

The students of the Senior Class meet the Professor charged with their special instruction on Monday, Wednesday, and Friday of each week, and, while pursuing the special studies of the Senior course, are required to go a second time through the course of the Junior year, that they may be thoroughly grounded in the law of real and personal property and of contracts.

The special studies of the Senior year begin with Common Law Pleading, in which Stephen on Pleading, as edited by Tyler, is used as the text-book of the class. Next follow instructions on the Law of Evidence, with the first volume of Greenleaf on Evidence as a manual. To these succeed instructions in Equity Jurisprudence and Equity Pleading and Practice, Smith's Manual of Equity and Mitford and Tyler's Pleading and Practice in Equity being the text-books used under these heads. The closing part of the course is occupied with the Law of Partnership, considered in itself and in its relations to remedies afforded in courts of equity; and, because of their especial character, lectures are given on the remedies: Ejectments, Quo Warranto, Scire Facias, and Mandamus, as also lectures, by way of review, on Pleading and on Evidence, delivered at the close of the whole course.

The method of instruction pursued in this class is as follows: A lesson, comprising a certain number of pages in the text-book, is assigned to the class, and on the subject-matter of this lesson the Professor, at his next meeting, lectures according to the requirements of the case. At the next meeting he examines the class on the text and lecture of the preceding meeting, using for this purpose carefully written questions and calling up indiscriminately the members of the class.

## Legal Catechetics.

### PROFESSOR JOHNSON.

The lectures of Professor Cox and of Professor MAURY in the undergraduate department are followed by oral "quizzes" (extending through a whole hour on several days of each week) conducted by Professor JOHNSON, a graduate of the School, who is familiar with its methods of instruction. His "quizzes" are additional and supplemental to those of Professors Cox and MAURY.

By this catechetical analysis, which proceeds on the basis of carefully prepared questions designed to exhaust the contents of the text-books and the lectures, the student is called upon to expound with clearness and to reproduce with readiness the principles of law explained in both.

It is hoped that such a *viva voce* review, by emphasizing the explication of difficult points, will not only impress these points on the memory of the student, but will also train him to a useful self-command in their prompt enunciation.

## Constitutional Law.

PROFESSOR HARLAN

(Associate Justice of the Supreme Court of the United States).

A course of lectures on the Constitution of the United States, extending through the whole of each scholastic year, is delivered by Mr. Justice HARLAN.

In this course the student is first made acquainted with the principles of Constitutional Law which had been established in England at the time our Government was organized, as well as with the history of the origin and formation of the Constitution of the United States. It is sought to show how far the Constitution, in its underlying principles, was an orderly and progressive evolution of political ideas in the British race, and how far, in its special structure and provisions, it was a new creation, adapted by its framers to the conditions and wants of the American States and people at the date of its formation. Next follows an examination of each separate clause of the Constitution, with a discussion of the leading adjudications which show how each clause of that instrument has been interpreted by the courts, especially by the Supreme Court of the United States.

These lectures are delivered every Saturday and are open to both the graduate and the undergraduate classes of the School.

## Law of Corporations.

PROFESSOR BREWER

(Associate Justice of the Supreme Court of the United States).

To those who are engaged in the every-day work of the profession no branch of the law is of greater practical importance than the law of corporations. So great a volume of business is done by corporations today that they furnish a large amount of the litigation; and, because of their importance, special attention is given to this subject. An extensive course of lectures is delivered by Mr. Justice BREWER, in which the fundamental principles, as early established, and the modifications and adaptations of those principles to the work of corporations in the business of today, as settled by the more modern authorities, are fully developed. The study in these lectures is not confined to private corporations, but includes also the subject of municipal corporations, and the differences

between the implied powers and liabilities of these two kinds of corporations and the reasons therefor are explained. This course extends through a large part of the year.

### International Law.

PROFESSOR LODGE.

The method of instruction in this subject is historical and philosophical as well as legal. After a discussion of International Law in its nature, foundation, and distinctive quality, as exhibited in its genetic ideas and in the laws of its growth, the Professor seeks to expound the fundamental principles which constitute the body of this supreme jurisprudence, with their most important applications, alike to the conduct of nations and to the conduct of individuals. His constant aim is to show how the problems of International Law have arisen, what was the matrix of historical environment in which the law was formed, what the law actually is at present, what defects the system exhibits when subjected to ethical criticism, and what are the lines of direction of the tendencies which a careful examination reveals. Care is taken to discriminate sharply between International Law and International Morality. Throughout the course the attempt is made to bring out in clear relief the most important points in the History of Diplomacy. The contributions made by the United States to the improvement of International Law are emphasized. It is believed that students expecting to enter the diplomatic service of the United States will find that this course will prove a valuable preparation for their official duties.

These lectures are open to both the graduate and undergraduate classes of the School.

### Politics and Sociology.

PROFESSOR LODGE.

It is the object of this course to furnish to the student of law a helpful knowledge of the history of culture, the evolution of social institutions, the philosophy of government, and the political life, past and present, of England, France, and the United States. By such studies law is put in its proper relation to life, the development of principles from root to fruit is traced, the interdependence of civilizations, the interrelations of races,

and the interaction of political forces are exhibited, and the essential elements of our jurisprudence, being studied in their genesis and growth, are more thoroughly comprehended. Short lecture courses are given upon the following subjects in succession:

I. Ethnology.

The work is based upon such authors as Topinard, Ratzel, Keane, and Brinton.

II. Anthropology.

It is aimed to present under this head the most important results reached by such masters of anthropological science as Tylor, Morgan, Powell, and Mason.

III. The Theory of the State, being careful studies in fundamental political philosophy, with critical examination of the history of speculation upon this subject from Aristotle to Bluntschli.

IV. Comparative Politics.

V. Sociology.

This part of the work will be grounded on Comte, Spencer, Ward, and Giddings.

The establishment of these courses is the first step in the development of the School of Comparative Jurisprudence briefly outlined on page 138, and the work will be conducted with the constant aim of contributing to the realization of the plan there set forth.

These courses are open to both the graduate and the undergraduate classes of the School.

### Criminal Law and Medical Jurisprudence.

PROFESSOR JEFFORDS.

This course will be supplementary to the fourth book of Blackstone, and will show to what extent the principles, in regard to public wrongs, laid down by Blackstone are applicable in this country at the present day, treating particularly of other principles and of offenses which are either not discussed by Blackstone or do not receive from him the attention which their importance in later times requires.

The course will include also an exposition of the legal principles which are likely to be raised in the practice of the medical profession.

The course is open to the undergraduate classes of the School.

### Practical Commercial Law.

WILLIAM F. MATTINGLY, Esq., a member of the bar of the District of Columbia, will deliver a special course of Lectures upon questions constantly arising in business life, in banking, in the use of commercial paper, and in the purchase and sale of merchandise, as illustrated by a study of actual cases.

The course is open to the undergraduate classes of the School.

### The History of Law.

Professor HENRY E. DAVIS, A. M., LL. M., delivers a course of Lectures giving a general view of the Origin of the English Law and its Development in England and in the United States.

The course is open to the undergraduate classes of the School.

## GRADUATE COURSE IN PRACTICE.

A graduate course of instruction in Common Law Practice and in Equity Pleading and Practice, designed to show the application of the principles of law to the transactions of business life and to the actual proceedings of courts, is conducted by Professors MAURY and JOHNSON as a supplement to the undergraduate course of the Law School. This course leads to the degree of Master of Laws.

In the Equity Branch the students are instructed by Professor MAURY in the general principles of equity pleading and in the mode of conducting an equity case. The text-book employed will be Mitford and Tyler's Equity Pleading and Practice.

During a considerable portion of the term Professor MAURY holds a chancery court, in which students are exercised in equity pleading and practice and all the details in the conduct of equity causes.

In addition to the instruction in legal and equitable procedure, Professor MAURY delivers a special course of lectures on the jurisdiction, practice, and peculiar jurisprudence of the courts of the United States.

In the Common Law Branch the students use, under the direction of Professor JOHNSON, a work on practice prepared by Professor COX, after which they are exercised in the conduct and trial of cases, and thus taught to apply their theoretical learning in pleading, practice, and evidence. In connection with this course it is intended that they shall also study some such work as Archbold's Law of *Nisi Prius*.

During more than half the term the exercises are those of a *Nisi Prius* Moot Court, presided over by Professor JOHNSON.

In this course, statements of facts are furnished to the students, who are required to bring and defend proceedings in equity and suits at law thereon, two students being assigned as counsel on each side. By this means they are required to determine the form of action or proceeding, to prepare the pleadings, to produce the evidence, and actually to try the cases, and are thus exercised in all the features and details of the preparation and conduct of an action at law or proceeding in equity as in actual practice, as also in the preparation of legal papers, such as conveyances, wills, etc.

### Conditions of Admission to the Graduate Course in Practice.

Candidates for admission to this course are required to furnish evidence that they have been diligent and successful students of law for the term of two years. Diplomas of respectable law schools, certifying that their holders have been graduated after such a term of study, will be received as evidence of qualification for admission. At the end of the course all such students who shall sustain a satisfactory examination in its instructions and exercises will be entitled to a diploma admitting them to the degree of Master of Laws. Students who have pursued a two years' term of study in a lawyer's office will also be admitted to the course on presenting a certificate of the fact from the lawyer under whose direction they may have studied and passing an entrance examination; but all such students, if aspiring to the degree of Master of Laws, will be required, as a condition precedent of receiving it, to sustain a satisfactory examination for the degree of Bachelor of Laws, as well as for the degree of Master of Laws.

The tuition fee for this course, covering a period of eight months, is *fifty dollars*. It does not carry with it the privilege of attending the Lectures of the undergraduate course, except in the case of students who are graduates of the School.

A charge of ten dollars is made for diplomas.

### Court of Appeals.

Supplementary to this is the Court of Appeals, to which these cases may be taken and in which the student is instructed and exercised in the course of procedure by writ of error and appeal and the preparation of

records on appeal, and the preparation of briefs and argument of causes in appellate courts, the purpose being to drill the student in all the details of a case in actual practice, from the presentation of the facts by the client to the final disposition thereof in the court of last resort.

## A SPECIAL COURSE IN PATENT LAW AND PATENT LAW PRACTICE.

PROFESSOR CHURCH.

In view of the growing importance of the subject, and in response to the urgent request of a number of members of the bar and graduates in law, the Board of Trustees of the University established in 1895 a new special course giving thorough preparation to those who contemplate entering that most interesting department of jurisprudence—the law of patents.

This course in practice covers a period of eight months, with two lectures or sessions of the Moot Court each week.

The degree of Bachelor of Patent Laws will be conferred upon those who pass a satisfactory examination at the close of the term.

Only graduates in law or members of the bar are eligible to this degree.

The course embraces a series of lectures covering the following subjects, among others: The organization of the District and Circuit Courts, the Court of Claims, the Circuit Courts of Appeal, the Court of Appeals of the District of Columbia, and of the Supreme Court; the powers of and distribution of jurisdiction among such courts relative to patent suits; the nature of the several kinds of suits that may be brought under the patent statutes; the pleadings appropriate to such suits; the production of evidence in patent causes; the various forms of process and modes of serving the same, and the various incidental details of procedure arising in the practical course of a patent suit; judgments and decrees and the modes of securing the entry of the same; proceedings on appeal, including explanation of forms and pleadings employed in appellate procedure; Patent Office interferences.

In addition to these lectures on pleadings and practice, a Moot Court is held for the trial of patent causes and Patent Office interferences. The court is provided with a clerk and a marshal, and is conducted in such a manner as to familiarize those participating with the details of practica

procedure so necessary to be known by the practitioner, yet so difficult to be acquired from the books.

Tuition for the course, $40.

A charge of ten dollars is made for diplomas.

### Societies for Legal Debate and Study.

A Debating Society is organized by students of the School for purposes of investigation, discussion, and practice in parliamentary law. This Society holds public exercises under the auspices of the University, at the close of each scholastic year. Special classes ("Quiz clubs") are also formed for purposes of associated study.

### Library and Reading-Room.

A Law Library, comprising the works of standard text-writers, the British and American Reports, and books of reference, is open for study and consultation daily from 9 o'clock a. m. to 10 o'clock p. m. The Library is supplied with Law Reviews and Law Periodicals, as well as with other leading reviews and periodicals in science and literature.

### Special Facilities.

The Law Library of the United States Supreme Court, containing the largest collection of law books in the country, is open to all who wish to examine any authority or to take notes from any book of reference in ancient or modern jurisprudence. This collection, alike by its variety and its number, lends itself to the study of the world's comparative jurisprudence. The different methods of judicial procedure can be studied at the National Capital not only in the Common Law Courts and Federal Courts of the District of Columbia, but also in the Court of Claims and in the Supreme Court of the United States. The Patent Laws, the Land Laws, and the Pension Laws of the United States are here administered in the Executive Bureaus of the Government.

### Examination and Graduation.

The Junior class will be examined at the end of the year upon Blackstone's Commentaries; Kent's Commentaries, vol. 4; Parsons on Con-

tracts; Byles on Bills; Brown on Domestic Relations; Pollock on Torts, and Cooley's Constitutional Law.

All candidates for graduation are required to pass an examination, at the end of the course, on all the studies of the two years, in the presence of the Faculty and of such committee as the Trustees of the University may appoint. This examination is conducted upon printed questions, which are answered by each student in writing.

The degree of Bachelor of Laws is granted to students who have passed both years of the prescribed course in the School, or who, on presenting credentials of equivalent study for the first year in some law college or office, and passing the second year in the School, shall sustain a satisfactory examination in all the studies of both the Junior and Senior classes.

## Prizes.

A prize of $100, called "The Parker Prize," in honor of its donor, the Hon. MYRON M. PARKER, is awarded to the student who passes in each year the best examination for the degree of Bachelor of Laws.

A prize of $50, called "The Britton Prize" in honor of its founder, Colonel ALEXANDER T. BRITTON, is awarded to the student who passes in each year the best examination for the degree of Master of Laws.

Three prizes, one of $40, one of $30, and one of $20, are annually given to the respective authors of the best three essays among all those handed in by such members of the Senior class as shall compete for them and shall pass a successful examination for the degree of Bachelor of Laws.

A prize of twenty-five dollars is awarded annually by Professor LODGE to the student who passes the best examination in International Law, and a similar prize to the student passing the best examination in Politics and Sociology.

Two prizes for excellence in debate are awarded by the Debating Society.

## Prize Men in 1895-'96.

M. M. Parker Prize, WILBER ALLEN OWEN.
A. T. Britton Prize, EDGAR H. MAY.
First Essay, WILLIAM H. COLEMAN.
Second Essay, ROBERT E. WILEY.
Third Essay, LEONARD J. MATHER.
First Debater's Prize, WILLIAM E. FORT.
Second Debater's Prize, BENJAMIN MARTIN, JR.

## Commencement.

The degrees are publicly conferred and the prizes delivered at the annual commencement of the Law Department, when, in connection with other appropriate exercises, an address is delivered to the graduating class by an eminent member of the bar whom the Faculty may have selected for that purpose.

## Expenses.

The entire charge for tuition, lectures, and all the facilities of the School is *eighty dollars* a year, payable in advance, half yearly, or in monthly installments, at the option of students. If a student shall for any cause intermit the studies of either his first or his second year at any point before graduation, or if, at the close of his second year, he shall fail, for any cause, to be graduated, the payments he may have made during either or both of these years will not work exemption from the regular dues of any subsequent year in which he may attend the School. A charge of *ten dollars* is made for diplomas.

Students from abroad can secure Board at reasonable prices. A list of eligible boarding places is always posted on the Bulletin-board of the University.

Graduates of the School are admitted to all lectures of the undergraduate course in subsequent years without charge.

## Admission to the Bar.

By the rules of the Supreme Court of the District of Columbia, applicants for admission to the Bar are required to have studied law for three years under the direction of a competent attorney, but by those rules the time spent in the Law School of the University is counted as part of the period of study required for admission.

## Columbian Law Society.

A society has recently been organized, under the name of the Columbian Law Society, by graduates of the Law School, for the investigation and discussion of practical legal questions and principles, and particularly those relating to the District of Columbia. Regular meetings of the Society are held in the University building on the second Friday of every month except June, July, and August. All graduates of the Law School who have been admitted to the bar of the District of Columbia are invited

to become members of this Society. Further information can be obtained from the President of the Society, Mr. GEO. FRANCIS WILLIAMS, 452 D street northwest, or from its Secretary, Mr. LOUIS A. ROSAFY, 505 Second street northeast.

### University Lectures.

Students of the Law School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than law lectures, given in the University Hall by applying to the Dean.

## PROJECTED SCHOOL OF COMPARATIVE JURISPRUDENCE.

The Corporation of the University, at the annual meeting in June, 1892, ordained that a "School of Comparative Jurisprudence, according to the plan already approved, be established as an integral part of our University system."

Attention is called to the courses in Politics and Sociology on page 130 as the introductory work of this school.

In this School, as fully developed, it will be sought to carry the study of law into the realm of *jurisprudence*, strictly so called, and to provide a systematic course of *University* studies leading to the degree of Doctor of Philosophy in Law. The juridical thought of the world will here be taught as a history and at the same time as a philosophy, ranging in its survey from the first rude germs of the clan stage of human government to the highest evolutions of juridical science, as seen in the Civil Law of Rome, the Common Law of England, and the growing body of International Law. The codes of particular nations and of successive stages in human culture will be passed in review only so far as they mark the successive stages of human progress along the line of civil institutions (after the manner of Freeman in his "Comparative Politics") and along the line of legal institutes (after the manner of Sir Henry Sumner Maine, Scrutton, Maitland, Vinogradoff, and others). It is designed that scientific studies in comparative anthropology shall form the indispensable preliminary to the special inquiries and task-work pursued in such a school of advanced studies in jurisprudence, so that the laws of the clan, of the tribe, of the village community, of the Greek city-state, of the Roman Empire, and of feudal Europe will be expounded in their proper logical sequence, as preparing the way for a philosophical study of the English Common Law, of American State and Federal jurisprudence, of International Law, of Law Reform, and of Codification.

## Schedule of Lectures in the Law School, 1897-'98.

| Days. | Hours. | Classes. | Professors. |
|---|---|---|---|
| Monday..... | 6 to 7.... | Senior Class..... | W. A. Maury. |
| Monday..... | 7 to 8.... | Post-graduate Class..... .. | W. A. Maury. |
| Monday..... | 8 to 9.... | Post-graduate Class..... ... | W. G. Johnson. |
| Monday..... | 7 to 8.... | Junior Class..... ... | J. M. Harlan. |
| Monday..... | 8 to 9.... | Junior and Senior Classes... | D. J. Brewer. |
| Tuesday..... | 6 to 7.... | Junior Class. . .. ..... | W. S. Cox. |
| Tuesday..... | 7 to 8.... | Quiz Junior Class ..... | W. G. Johnson. |
| Tuesday..... | 8 to 9.... | Quiz Senior Class ..... | W. G. Johnson. |
| Wednesday.. | 6 to 7.... | Senior Class..... ... | W. A. Maury. |
| Wednesday.. | 7 to 8.... | Post-graduate Class..... | W. A. Maury. |
| Wednesday.. | 8 to 9.... | Post-graduate Class. ..... | W. G. Johnson. |
| Wednesday.. | 7 to 8.... | Senior and Junior Classes... | J. M. Harlan. |
| Thursday.... | 6 to 7.... | Junior Class..... | W. S. Cox. |
| Thursday.... | 7 to 8.... | Quiz Junior Class ..... | W. G. Johnson. |
| Thursday.... | 8 to 9.... | Quiz Senior Class ..... | W. G. Johnson. |
| Friday..... | 6 to 7.... | Senior Class..... | W. A. Maury. |
| Friday..... | 7 to 8.... | Post-graduate Class..... | W. A. Maury. |
| Saturday... . | 6 to 7.... | Junior Class..... ... | W. S. Cox. |
| Saturday..... | 7 to 8.30 . | Junior and Senior Classes... | J. M. Harlan. |

### Extraordinary Lectures.

Corporation Law, Professor D. J. BREWER, Mondays at 8 p. m., beginning October 25.

Criminal Law, Professor JEFFORDS, Wednesdays at 8 p. m. after January 1.

Patent Law, Professor BENJAMIN BUTTERWORTH, Thursdays at 8 p. m. during March.

Commercial Law, Professor W. F. MATTINGLY, Wednesdays at 8 p. m. during January.

## STUDENTS OF LAW.

### Graduate Class in Practice.

| Name. | Address. |
|---|---|
| George Wilson Baker, District of Columbia,<br>LL. B., Columbian University, 1896. | 1745 Q Street, N. W. |
| Rufus H. Baker, New Hampshire,<br>A. B., Dartmouth, 1893.<br>LL. B., Columbian University, 1896. | 1447 Corcoran Street, N. W. |
| Frank M. Barnes, Minnesota,<br>LL. B., Columbian University, 1896. | 1225 O Street, N. W. |
| Grove Sidney Beardsley, New York,<br>LL. B., Columbian University, 1896. | 1704 Connecticut Avenue, N. W. |
| Frank Corey Bliss, Pennsylvania,<br>LL. B., Columbian University, 1896. | 329 T Street, N. W. |
| Eugene J. Bogen, Mississippi,<br>LL. B., Columbian University, 1896. | Treasury Department. |
| H. Leroy Browning, Illinois,<br>LL. B., Columbian University, 1896. | 4 Eighth Street, S. E. |
| Sherman E. Burroughs, New Hampshire,<br>A. B., Dartmouth, 1894.<br>LL. B., Columbian University, 1896. | 1432 S Street, N. W. |
| Charles Benedict Calvert, Maryland,<br>LL. B., Columbian University, 1896. | 1750 Corcoran Street, N. W. |
| George Henry Calvert, Jr., Maryland,<br>A. B., Maryland Agricultural College.<br>LL. B., Columbian University, 1896. | College Park, Maryland. |
| Luther S. Cannon, North Carolina,<br>A. B., Wake Forest College, 1890.<br>LL. B., Columbian University, 1896. | 1014 Eighth Street, N. W. |
| Harry Lincoln Clapp, Massachusetts,<br>S. B., Massachusetts Institute of Technology, 1893.<br>LL. B., Columbian University, 1896. | Room 37, Patent Office. |
| Francis W. H. Clay, Kentucky,<br>C. E., Cornell University, 1893.<br>LL. B , Columbian University, 1896. | 1321 Rhode Island Ave., N. W. |

| Name. | Address. |
|---|---|
| H. Karl Cooke, District of Columbia,<br>LL. B., Columbian University, 1896. | 1 Cook Place, N. W. |
| Guy E. Davis, District of Columbia,<br>LL. B., Columbian University, 1896. | 3006 P Street, N. W. |
| Theodore Taylor Dorman, New Jersey,<br>S. B., Massachusetts Institute of Technology, 1893.<br>LL. B., Columbian University, 1896. | Mount Pleasant, D. C. |
| Bertram Martin Doyle, Kentucky,<br>Ph. B., Riverside Seminary, 1892.<br>LL. B., Columbian University, 1896. | 934 I Street, N. W. |
| James M. Fisher, Virginia,<br>LL. B., Columbian University, 1896. | 1212 Ninth Street, N. W. |
| Arthur I. Flagg, Virginia,<br>LL. B., Columbian University, 1896. | 903 H Street, N. W. |
| Justin E. Flannery, Ohio,<br>LL. B., Columbian University, 1896. | Post-Office Department. |
| Arthur Lewis Flint, Ohio,<br>LL. B., Columbian University, 1896. | Patent Office. |
| John Wesley Gardner, New York,<br>LL. B., Columbian University, 1896. | 1115 O Street, N. W. |
| Arthur Garner, District of Columbia,<br>LL. B., Columbian University, 1896. | McGill Building. |
| Thomas Newcombe Greer, Tennessee,<br>LL. B., Columbian University, 1896. | 2313 Pennsylvania Ave., N.W. |
| Frank Ruthven Hanna, Kansas,<br>LL. B., Columbian University, 1896. | 700 Twentieth Street, N. W. |
| Charles Burkhart Harding, Pennsylvania,<br>LL. B., Columbian University, 1896. | Mertz Building. |
| Edward J. Henning, Wisconsin,<br>B. L., University of Michigan, 1894. | 1108 Sixteenth Street, N. W. |
| Granby Hillyer, Georgia,<br>LL. B., Columbian University, 1896. | 1202 S Street, N. W. |
| Charles A. Hines, District of Columbia,<br>LL. B., Columbian University, 1896. | Tennallytown, D. C. |
| Jason Claiborne Hundley, Virginia,<br>LL. B., Columbian University, 1896. | 1215 I Street, N. W. |

| Name. | Address. |
|---|---|
| Abraham B. Keefer, Pennsylvania,<br>LL. B., Columbian University, 1896. | 1334 Emerson Street, N. E. |
| Colton H. Lee, District of Columbia,<br>LL. B., Columbian University, 1896. | 1620 Fifteenth Street, N. W. |
| Alexander D. Lunt, New York,<br>M. E., M. M. E., Cornell.<br>B. S., Worcester Polytechnic Institute.<br>LL. B., Columbian University, 1896. | The Lincoln. |
| Richard L. Mabrey, Missouri,<br>LL. B., Georgetown University, 1896. | 302 D Street, N. E. |
| R. L. Maddox,<br>LL. B., Columbian University, 1893. | 1013 P Street, N. W. |
| Henry Morris Marshall, Virginia,<br>LL. B., Columbian University, 1896. | 2009 I Street, N. W. |
| John A. Massie, District of Columbia,<br>LL. B., Columbian University, 1896. | 700 Tenth Street, N. W. |
| Leonard J. Mather, District of Columbia,<br>LL. B., Columbian University, 1896. | 520 Third Street, N. W. |
| John J. McGrain, Indiana,<br>LL. B., Columbian University, 1896. | 320 Elm Street, N. W. |
| Guy Stanley Meloy, Maryland,<br>LL. B., Columbian University, 1896. | 118 C Street, N. W. |
| Wayne Adolphus Mitchell, North Carolina, | 2107 O Street, N. W. |
| Noble Moore, Tennessee,<br>LL. B., Columbian University, 1896. | 1115 Rhode Island Ave., N.W. |
| Charles Stothard Muir,<br>LL. B., Columbian University, 1893. | 512 Third Street, N. W. |
| Henry Orth, Jr., District of Columbia,<br>LL. B., Columbian University, 1896. | 1011 L Street, N. W. |
| Wilber Allen Owen, Michigan,<br>LL. B., Columbian University, 1896. | 1204 Massachusetts Ave., N.W. |
| Charles W. Parker, Virginia,<br>LL. B., Columbian University, 1896. | 614 F Street, N. W. |
| Thornton Jenkins Parker, Rhode Island,<br>LL. B., Columbian University, 1896. | 600 Twenty-first Street, N. W. |
| Bennett Peck, District of Columbia,<br>LL. B., Columbian University, 1896. | 3263 O Street, N. W. |

| Name. | Address. |
|---|---|
| Francis Mohun Phelps, Connecticut,<br>LL. B., Columbian University, 1896. | 1206 S Street, N. W. |
| James Franklin Philp, New York,<br>LL. B., Columbian University, 1896. | 1822 Sixteenth Street, N. W. |
| Aurelian Howard Pinney, Iowa,<br>LL. B., Columbian University, 1896. | 129 E Street, N. W. |
| Joseph Herbert Pritchard,<br>A. B., Davis Military School, 1895.<br>LL. B., Wake Forest, 1896. | |
| J. Castle Ridgway, Illinois,<br>LL. B., Columbian University, 1896. | 1632 Seventeenth Street, N. W. |
| Thomas M. Robertson, North Carolina,<br>LL. B., Columbian University, 1896. | 213 Eighth Street, N. E. |
| Edward Gaston Russell, Georgia,<br>Ph. B., University of Georgia, 1890.<br>LL. B., National University, 1893. | 902 M Street, N. W. |
| J. Martin Scranage, West Virginia,<br>LL. B., Columbian University, 1896. | 934 I Street, N. W. |
| Arthur Bingham Seibold, District of Columbia,<br>LL. B., Columbian University, 1896. | 110 Maryland Avenue, N. E. |
| Alonzo Walter Shunk, Pennsylvania,<br>LL. B., Columbian University, 1896. | 716 Eighth Street, N. W. |
| Henry E. Stauffer, Delaware,<br>LL. B., Columbian University, 1896. | 3238 N Street, N. W. |
| Charles H. Stevenson, Maryland,<br>LL. B., Columbian University, 1896. | U. S. Fish Commission. |
| Benjamin R. Stuart, Jr., District of Columbia. | 1226 Fifteenth Street, N. W. |
| James A. Tanner, District of Columbia,<br>LL. B., Columbian University, 1896. | 3208 U Street, N. W. |
| Blain W. Taylor, West Virginia,<br>LL. B., Columbian University, 1896. | 246 Ninth Street, N. E. |
| William Hill Taylor, Ohio,<br>LL. B., Columbian University, 1896. | 1307 Roanoke Street, N. W. |
| Robert Wharton Test, Illinois,<br>LL. B., Columbian University, 1896. | 223 E Street, N. W. |
| John Sarsfield Tucker, New York,<br>LL. B., Columbian University, 1896. | The Lincoln. |

| Name. | Address. |
|---|---|
| William Pinckney Walker, Ohio, LL. B., Columbian University, 1896. | 936 Twenty-third Street, N. W. |
| John L. Weaver, District of Columbia, LL. B., Columbian University, 1896. | Chevy Chase, Maryland. |
| Robert Emmet Wiley, Arkansas, LL. B., Columbian University, 1896. | 1112 H Street, N. W. |
| Charles Frederick Wilson, District of Columbia, LL. B., Columbian University, 1896. | 2004 G Street, N. W. |
| W. Oliver Wise, Ohio, LL. B., Cincinnati Law College, 1896. | 1203 Thirteenth Street, N. W. |

Graduate Class in Practice.... ..... 71

## Seniors.

| Name. | Address. |
|---|---|
| Maurice LeRoy Alden, Kansas, A. B., Kansas University, 1895. | 813 Vermont Avenue, N. W. |
| Robert Lewis Ames, Michigan, B. S., M. E., University of Michigan, 1894. | 18 Grant Place, N. W. |
| Percy Franklin Archer, Maryland, | 234 New Jersey Avenue, S. E. |
| Howell Bartle, District of Columbia. | 1347 T Street, N. W. |
| Louis D. Basye, Virginia, | 708 Thirteenth Street, N. W. |
| Will J. Becker, Illinois, M. E., Royal Polytechnique, Munich. | 6 Iowa Circle, N. W. |
| Frank Moulton Benjamin, Ohio, | 509 T Street, N. W. |
| James Wilson Bevans, District of Columbia, | 1114 I Street, S. E. |
| Howard Ray Blanchard, Virginia, | 926 North Carolina Ave., S. E. |
| Preston Boisseau, Virginia, | 1111 H Street, N. W. |
| John Stidham Bonebrake, District of Columbia, | 917 Third Street, N. W. |
| Robert Huntington Bosard, North Dakota, | 410 Third Street, N. W. |
| Philander Adams Bowen, Jr., Maryland, | 1410 G Street, N. W. |
| Stephen Duncan Bradley, District of Columbia, | 1688 Thirty-first Street, N. W. |

| Name. | Address. |
|---|---|
| Frank Walter Brandenburg, District of Columbia, | 1745 Pennsylvania Ave., N. W. |
| John Waggaman Brawner, District of Columbia, | Washington Loan and Trust Building. |
| Clark Cleland Briggs, Vermont, A. B., University of Vermont. | 917 New York Avenue, N. W. |
| Harry J. Brown, New Hampshire, B. S., Dartmouth College, 1895. | 1432 S Street, N. W. |
| Arthur Augustine Buck, Massachusetts, B. S., Massachusetts Institute of Technology, 1893. | Patent Office. |
| Bernard John Cain, District of Columbia, | 512 Fifth Street, N. W. |
| Henry Clay Carlson, Minnesota, | 1012 Thirteenth Street, N. W. |
| J. F. Casey, Louisiana, | The Milton. |
| John Caywood, Montana, B. S., National Normal University, 1896. | 1235 New York Avenue, N. W. |
| Lindley Daniel Clark, Tennessee, A. B., Earlham College, 1886. A. M., Maryville College, 1890. | 1207 New Jersey Avenue, N.W. |
| Oscar DeForest Clarke, District of Columbia, | 232 First Street, S. E. |
| Henry A. Conner, California, | 2909 Q Street, N. W. |
| William Beson Corwin, Pennsylvania, | Atlantic Building. |
| James Louis Cousar, Arkansas, | 1017 Twelfth Street, N. W. |
| William McKissack Crook, Texas, | 222 New Jersey Avenue, S. E. |
| Fred. C. Croxton, Illinois, | 907 R Street, N. W. |
| Clifford T. Curry, Ohio, | 802 Eleventh Street, N. W. |
| George W. Dalzell, New York, | 433 Q Street, N. W. |
| Samuel Dalzell, Pennsylvania, | 1605 New Hampshire Avenue, N. W. |
| Frederick L. Davis, Pennsylvania, | 940 K Street, N. W. |
| Joseph A. Dempf, District of Columbia, | 311 F Street, N. E. |
| John Hibbett De Witt, Tennessee, A. B., Vanderbilt, 1894. | 940 New York Avenue, N. W. |
| Henry Pelouze Doolittle, District of Columbia, | 2022 Hillyer Place, N. W. |
| Leon Lamar Dye, Mississippi, | 804 I Street, N. W. |
| William Lewis English, Illinois, | 1415 Q Street, N. W. |

| Name. | Address. |
|---|---|
| Samuel Carroll Ford, District of Columbia,<br>A. B., A. M., Columbian University, 1894, 1896. | 314 Second Street, S. E. |
| Rudolph Forster, Virginia, | 213 Fifth Street, S. E. |
| Owen Henry Fowler, District of Columbia, | 922 I Street, N. W. |
| Edward Stuyvesant Frith, Tennessee, | 1315 Q Street, N. W. |
| Augustus Marion Fulk, Arkansas, | 1011 M Street, N. W. |
| Francis Guy Fulk, Arkansas, | 1011 M Street, N. W. |
| L. William Gammon, New York, | Treasury Department. |
| Frederic Briscoe Goodheart, Tennessee, | 636 L Street, N. E. |
| Truxton Goodrell, District of Columbia, | 1823 U Street, N. W. |
| W. J. Hayes, Ohio, | 805 O Street, N. W. |
| John Thilman Hendrick, Tennessee, | 1704 Q Street, N. W. |
| George Jacob Hesselman, Illinois, | 620 I Street, N. W. |
| Frederick Dayton Hyde, Nebraska, | 216 Indiana Avenue, N. W. |
| James E. Jenks, Minnesota, | 1310 Twelfth Street, N. W. |
| Charles A. Johnson, District of Columbia, | 2011 S Street, N. W. |
| Madison Ralph Jones, California,<br>A. B., University of California. | 1115 Rhode Island Ave., N.W. |
| Frank Keiper, Indiana,<br>A. B., Wabash, 1891.<br>B. M. E., Purdue, 1893.<br>M. E., Purdue, 1894.<br>M. A., Wabash, 1896. | 509 Sixth Street, N. W. |
| James Benton Lackey, District of Columbia, | 1612 Q Street, N. W. |
| John Wilmer Latimer, West Virginia, | 1523 Vermont Avenue, N. W. |
| Henry Leonard, District of Columbia, | 626 D Street, S. E. |
| George Reiss Linkins, District of Columbia, | 1923 G Street, N. W. |
| William Henry Lopp, Indiana, | 906 K Street, N. W. |
| Lewis Henry Machen, Virginia, | Alexandria, Virginia. |
| George Dallas Mackay, Jr., New Jersey, | Congressional Hotel. |
| George Mallison, U. S. Navy, | 2150 P Street, N. W. |
| Benjamin Martin, Jr., South Carolina, | 1806 S Street, N. W. |
| Henry Howze McLendon, North Carolina,<br>A. B., Wake Forest, 1896. | 1008 N Street, N. W. |

| Name. | Address. |
|---|---|
| William Mehn, Louisiana, | 1838 Sixth Street, N. W. |
| Claude E. Miller, Pennsylvania, | 1334 Fifteenth Street, N. W. |
| David Pelton Moore, District of Columbia, | 2029 O Street, N. W. |
| Elliott Kaye Pennebaker, Kentucky, | 1307 F Street, N. W. |
| George Washington Peterson, Minnesota, A. B., Minnesota University, 1893. | 1012 Thirteenth Street, N. W. |
| Charles E. Phelps, Illinois, | 213 North Capitol Street. |
| Samuel Platt, Nevada, | 714 Fifth Street, N. W. |
| Spencer B. Prentiss, District of Columbia, | 1218 Ninth Street, N. W. |
| Ralph H. Riddleberger, Virginia, | 1601 Fifteenth Street, N. W. |
| Frederick Dillow Riggles, Virginia, | 2121 G Street, N. W. |
| Webster S. Ruckman, Michigan, B. S., University of Michigan, 1887. | 422 C Street, N. E. |
| Herbert Cooper Sanford, Wisconsin, B. L., Lawrence University, 1893. | 1132 Fifth Street, N. W. |
| Edward Thomas Scully, Massachusetts, B. A., Williams, 1894. | 1234 Massachusetts Ave., N. W. |
| Joe Powell Shoup, Iowa. | 29 Grant Place, N. W. |
| Joseph Roy Showalter, Pennsylvania, | 1235 New York Avenue, N.W. |
| Charles S. Shreve, Jr., District of Columbia, | 1543 Eighth Street, N. W. |
| Harvey Faris Smith, West Virginia, B. A. in Law University of West Virginia. | 1514 Twelfth Street, N. W. |
| William Martin Smith, Ohio, | 92 M Street, N. W. |
| Gordon Sowers, District of Columbia, | 6 Cooke Place, N. W. |
| Augustus Franklin Specht, Pennsylvania. | 142 C Street, N. E. |
| John Martin Spellman, Texas, | 933 H Street, N. W. |
| William Stephen Stamper, Virginia, | Department of Agriculture. |
| John Walton Steward, District of Columbia, | 508 C Street, S. E. |
| Judson M. Strickland, Georgia, A. B., LL. B., Mercer University. | 933 H Street, N. W. |
| Willis Eugene Sullivan, Idaho, | 1621 Thirteenth Street, N. W. |
| Otho H. W. Talbott, Maryland, | Rockville, Maryland. |
| Fred L. Tarbox, New York, | 401 First Street, S. E. |
| Jno. Lilburn Thomas, Jr., Missouri, | 1456 Euclid Place, N. W. |

| Name. | Address. |
|---|---|
| George Prescott Tucker, Nebraska, B. S., Worcester Polytechnic Institute. | 633 G Street, N. E. |
| Warder Voorhees, Ohio, | 1257 Twenty-third Street, N. W. |
| Pere G. Wallmo, Connecticut, | The Buckingham. |
| Harry O. Weaver, Ohio, | U. S. Fish Commission. |
| Ferdinand Albert Weiler, District of Columbia, | 1316 V Street, N. W. |
| Cyrus Campbell Wells, Illinois, | The Westminster. |
| Joseph Wickes Welsh, | 1725 Twenty-first Street, N. W. |
| William Francis Woolard, Illinois, | Patent Office. |
| William G. Worrell, Virginia, | Treasury Department. |

Seniors..... 103

## Juniors.

| Name. | Address. |
|---|---|
| Isaac Q. H. Alward, District of Columbia, | 1518 Caroline Street, N. W. |
| Henry Beard Armes, New Jersey, A. B., Princeton, 1896. | Fifteenth Street and Kenesaw Avenue, N. W. |
| Chester Averill, Massachusetts, | 1234 Massachusetts Ave., N. W. |
| Harry A. Auer, Michigan, | 315 S Street, N. E. |
| William W. Barclay, District of Columbia, | 1510 H Street, N. W. |
| Edward Franklin Beckman, Wisconsin, | 707 I Street, N. W. |
| Alexander Garner Bentley, District of Columbia, A. B., Yale, 1896. | 1116 Ninth Street, N. W. |
| Henry Thurman Bright, District of Columbia, | 517 A Street, S. E. |
| Frederick Harmon Blackford, District of Columbia, | 714 North Carolina Ave., S. E |
| Louis Brooks, Georgia, | 800 Eleventh Street, N. W. |
| James Henderson Bundren, Tennessee, B. S., Carson-Newman, 1894. | 507 Fourth Street, N. W. |
| Royal Edwin Burnham, District of Columbia, | 103 C Street, S. E. |
| Dixson H. Bynum, Indiana, | 908 Fifteenth Street, N. W. |

| Name. | Address. |
|---|---|
| Charles Taylor Carter, District of Columbia, | 937 Virginia Avenue, S. W. |
| George Phillips Chase, District of Columbia,<br>B. S., University of Pennsylvania, 1895. | 810 Eleventh Street, N. W. |
| Willoughby Sprigg Chesley, Maryland, | 1737 Seventeenth Street, N.W. |
| Frank M. Church, New Jersey,<br>B. S., Georgetown, Ky., 1896. | 507 Fourth Street, N. W. |
| Walter Beaumont Clarkson, Virginia, | 1706 F Street, N. W. |
| Walter Edwin Clendaniel, District of Columbia, | 222 Eleventh Street, S. E. |
| Joseph S. Cornish, Arkansas, | Langdon, D. C. |
| Frank Wiley Crist, Illinois, | 1304 Riggs Street, N. W. |
| Edgar V. Crittenden, West Virginia, | 200 I Street, N. W. |
| John Charles Dabney, Virginia,<br>B. S., Virginia Polytechnic Institute, 1895. | 1723 G Street, N. W. |
| John Bernard Dahlgren, District of Columbia,<br>E. E., Lehigh, 1890. | 6 Lafayette Square, N. W. |
| Hammett S. Delaplane, Virginia, | 808 Fifth Street, N. E. |
| Andrew Devine, Jr., New York, | 1408 Thirty-first Street, N. W. |
| Henry George Disch, Wisconsin, | 100 Massachusetts Ave., N. E. |
| David R. Dixon, Mississippi, | 1233 New York Avenue, N.W. |
| Moncena M. Dodge, Maine, | 940 New York Avenue, N. W. |
| Charles F. Du Bois, District of Columbia, | 2028 Sixteenth Street, N. W. |
| Mortimer Du Perow, Canada, | 527 Fifteenth Street, N. W. |
| Ogden Ellery Edwards, Jr., New York,<br>B. S., Alabama Polytechnic Institute. | 1906 H Street, N. W. |
| William McElfresh Ellison, Virginia, | West End, Virginia. |
| Leon Moyer Estabrook, Texas, | 1801 E Street, N. W. |
| Samuel Henry Evans, Virginia, | 1317 R Street, N. W. |
| Joseph Doniphan Felix, North Carolina, | 1527 I Street, N. W. |
| Harry Franklin Flynn, Ohio,<br>C. E., Ohio State University. | Coast Survey. |
| Claude S. Frost, New York, | 2020 F Street, N. W. |
| Wiley Harrison Grandy, North Carolina, | 1023 Connecticut Ave., N. W. |

| Name. | Address. |
|---|---|
| Charles H. Gray, Nebraska, | 728 Ninth Street, N. E. |
| John P. Gray, Idaho, | 1014 Fifteenth Street, N. W. |
| Eugene Grissom, Jr., North Carolina, | 1106 H Street, N. E. |
| Frederick L. Grosvenor, Ohio, | 1210 G Street, N. W. |
| Charlie Oscar Guynes, Mississippi, B. L., Mississippi. | 804 I Street, N. W. |
| Frederick Chaille Handy, Virginia, | 1331 Twelfth Street, N. W. |
| John Tyre Harris, Missouri, | 1220 Eleventh Street, N. W. |
| Thomas W. Haworth, New York, | 505 Third Street, N. W. |
| Frederick Leith Hemmings, Illinois, | 513 Thirteenth Street, N. W. |
| Edward Clement Henrotin, Illinois, | 1726 N Street, N. W. |
| Jesse Hicks, Virginia, | 1527 I Street, N. W. |
| Franklin P. Hobgood, Jr., North Carolina, A. B., Wake Forest, 1896. | 1527 I Street, N. W. |
| Pearce Horne, Jr., District of Columbia, | 1300 Pennsylvania Ave., N. W. |
| Oscar C. Huffman, Virginia, | 906 Fourteenth Street, N. W. |
| George Johannes, Pennsylvania, | 228 Morgan Street, N. W. |
| James E. Jones, Ohio, | Department of Agriculture. |
| Adolph G. Keyser, District of Columbia, | 2019 Massachusetts Ave., N. W. |
| William Franklin Kirk, Texas, | Department of Labor. |
| Joseph Bayard Lamkin, Georgia, | Interior Department. |
| Harry Holbrook Lee, Ohio, | 1620 Fifteenth Street, N. W. |
| William Hartley Lewis, Connecticut, | 3009 Cambridge Place, N. W. |
| William Grant Lieuallen, Washington, | 716 Eighth Street, N. W. |
| Charles Linkins, District of Columbia, | 1923 G Street, N. W. |
| Edwin Osborne Loucks, Illinois, | 1911 Fourth Street, N. W. |
| Wardlaw MacGill Mason, Maryland, | Rockville, Maryland. |
| John Warren Matson, Michigan, | Hotel Vendome. |
| Charles Eugene Matthews, Oklahoma, | 508 Ninth Street, N. W. |
| William Francis Mattingly, District of Columbia, A. B., Princeton, 1896. | 1616 H Street, N. W. |
| John Richmond McCain, Alabama, A. B., Lineville. | 934 New York Avenue, N. W. |
| Lewin Stewart McDonald, District of Columbia, | 717 North Carolina Ave., S. E. |
| McKee Dunn McKee, District of Columbia, A. B., Yale, 1896. | 1753 Rhode Island Ave., N. W. |

| Name. | Address. |
|---|---|
| Frederick Vallette McKenzie, Kentucky, | 809 H Street, N. W. |
| Wallace Donald McLean, District of Columbia, A. B., Princeton, 1896. | 1414 Park Street, N. W. |
| David H. Mead, District of Columbia, | 900 F Street, N. W. |
| Wilbur F. Melbourne, Missouri, | 3043 P Street, N. W. |
| Harry Platt Moore, Maryland, | 1410 Pennsylvania Ave., N.W. |
| Alston Brintnall Moulton, Massachusetts, B. S., Worcester Polytechnic Institute. | 1850 Fifth Street, N. W. |
| Graham B. Nichol, Indiana, | 113 Maryland Avenue, N. E. |
| Herbert G. Ogden, District of Columbia, E. E., Cornell, 1896. | 1610 Riggs Place, N. W. |
| Robert Taylor Oliver, District of Columbia, | 1725 Riggs Place, N. W. |
| Paul V. Overton, Texas, | 1339 U Street, N. W. |
| John Isaac Painter, Iowa, A. B., Drake University. | 407 First Street, N. W. |
| Charles Wellman Parks, New York, | 1829 Corcoran Street, N. W. |
| Samuel Scoville Paschal, District of Columbia, | 1343 Fifteenth Street, N. W. |
| Adam C. Perkins, Georgia, | 408 Rhode Island Ave., N. W. |
| Charles W. Philipbar, Pennsylvania, | 603 Pennsylvania Ave., S. E. |
| Henry Hill Pierce, Maine, A. B., Bowdoin, 1896. | 1529 Rhode Island Ave., N.W. |
| Frederick R. Proctor, Washington, | 605 Howard Avenue, N. W. |
| Charles Edward Rappolee, Kentucky, | 1005 Thirteenth Street. N. W. |
| George S. Rees, West Virginia, | 911 New York Avenue, N. W. |
| Ernest Rice, Maine, | 1309 H Street, N. W. |
| Willard A. Rill, New York, | 1224 F Street, N. W. |
| Walter W. H. Robinson, Maryland, | 1824 G Street, N. W. |
| Algernon Sartoris, District of Columbia, | 2111 Massachusetts Ave., N.W. |
| Earle W. Seitz, Missouri, | 202 E Street, N. W. |
| Armin Frederick Sellhausen, District of Columbia, | 510 D Street, S. E. |
| Walter Conwell Shoup, New York, A. B., Columbia, 1896. | 29 Grant Place, N. W. |
| William Morgan Shuster, District of Columbia, | 1408 Fifteenth Street, N. W. |

| Name. | Address. |
|---|---|
| Charles W. Slater, District of Columbia, | 324 B Street, S. E. |
| Herbert McKelden Smith, District of Columbia, | 1508 Twenty-first Street, N. W. |
| Walter Scott Smith, Alabama, A. B., Lineville, 1896. | 934 New York Avenue, N. W. |
| Theodore Thomas Snell, District of Columbia, | Box 36, 900 F Street, N. W. |
| John J. Snodgrass, District of Columbia, | 520 Twenty-first Street, N. W. |
| Benjamin Pettit Snyder, District of Columbia, | 15th St. & N. Y. Ave., N. W. |
| George Speidel, Jr., Pennsylvania, | 1311 Emerson Street, N. E. |
| Alexander Spotswood, Virginia, | 736 Twelfth Street, N. W. |
| Paul Walter Stevens, Georgia, | 901 Thirteenth Street, N. W. |
| Oliver C. Stine, Illinois, | 138 E Street, N. E. |
| William C. Stone, District of Columbia, | Brightwood, D. C. |
| John L. Stout, Jr., Kentucky, | 507 Fourth Street, N. W. |
| Barnwell S. Stuart, District of Columbia, | 1515 Thirty-first Street, N. W. |
| George O. Swartz, Ohio, | 1505 T Street, N. W. |
| Galen Lamar Tait, District of Columbia, | 1718 Q Street, N. W. |
| Sutematsu Teshima, Japan, | Japanese Legation. |
| William M. Thompson, New Jersey, | 1719 Fourteenth Street, N. W. |
| Philip Tindall, District of Columbia, | 2103 California Avenue, N. W. |
| Forest Paul Tralles, District of Columbia, | 808 Seventh Street, N. W. |
| Walter Urbach Varney, Virginia, | Arlington, Virginia. |
| Albert M. Walker, Iowa, | 2311 Pennsylvania Ave., N. W. |
| Frederic Parkman Warfield, New York, A. B., Hamilton, 1896. | 1013 H Street, N. W. |
| Thomas David Watkins, Kentucky, A. B., Bethel, 1895. | 715 M Street, N. W. |
| Arthur D. Weakley, Illinois, D. D. S., University of Pennsylvania, 1894. | 207 A Street, S. E. |
| Herbert Arthur White, U. S. Army, U. S. Military Academy. | Fort Myer, Virginia. |
| Frederick Jewell Whitehead, New Jersey, | 1513 R Street, N. W. |
| Webster Harlan Wilkinson, Illinois, | 1537 Fifteenth Street, N. W. |
| Willard B. Wilson, Illinois, | Patent Office. |
| Jesse Marion Woodward, Kentucky, | Patent Office. |
| John Womack Wright, Tennessee, | 1724 Corcoran Street, N. W. |

Junior students..... 127

## Students in Patent Law.

| Name. | Address. |
|---|---|
| Cyrus Nathan Anderson, Mississippi, | 2119 F Street, N. W. |
| John De Witt Arnold, District of Columbia,<br>LL. B., Georgetown, 1893.<br>LL. M., Georgetown, 1894. | 1707 Twenty-first Street, N. W. |
| George F. Daggett, Maine,<br>LL. M., Columbian University, 1894. | 511 Tenth Street, N. W. |
| Frank Parker Davis, District of Columbia,<br>LL. B., Columbian University, 1896. | 900 F Street, N. W. |
| Richard J. Donnelly, District of Columbia, | 715 Ninth Street, N. W. |
| Reeve Lewis, District of Columbia,<br>LL. B., Columbian University, 1896. | 620 F Street, N. W. |
| Emerson R. Newell, Connecticut,<br>A. B., Yale, 1893.<br>LL. M., Columbian University, 1896. | Patent Office. |
| J. Van Ness Philip, New York,<br>LL. B., Columbian University, 1893. | 344 D Street, N. W. |
| Cassell Severance, District of Columbia,<br>LL. M., Columbian University. | 317 Spruce Street, N. W. |
| Augustus B. Tolman, Massachusetts,<br>LL. M., Columbian University, 1893. | 905 Westminster Street, N. W. |
| Horace Greely Van Everen, New York,<br>M. E., Cornell, 1891.<br>LL. M., Columbian University, 1896. | 534 Twentieth Street, N. W. |
| John Chalmers Wilson, Maryland,<br>LL. B., Columbian University, 1894.<br>LL. M., Columbian University, 1895. | 930 F Street, N. W. |
| Ralph Wormelle, District of Columbia,<br>LL. B., National, 1894.<br>LL. M., National, 1895. | 207 Elm Street, N. W. |

Students in Patent Law. ..... ..... 13

## Lecture Students.

| Name. | Address. |
|---|---|
| Charles K. Bell, Texas, | National Hotel. |
| Henderson R. Dysard, Kentucky, | 428 College Street, N. W. |
| John H. Hinton, Missouri, LL. B., Cumberland, 1879. | 1209 K Street, N. W. |
| George C. Pendleton, Texas, | 615 Sixth Street, N. W. |

RECAPITULATION.

| | |
|---|---|
| Graduate Class in Practice | 71 |
| Seniors | 103 |
| Juniors | 127 |
| Students in Patent Law | 13 |
| Lecture Students | 4 |
| Total | 318 |

# THE MEDICAL SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

D. KERFOOT SHUTE, M. D.,
Dean and Professor of Anatomy.

N. S. LINCOLN, M. D.,
Emeritus Professor of Surgery.

J. FORD THOMPSON, M. D.,
Professor of Surgery and President of the Faculty.

WILLIAM W. JOHNSTON, M. D.,
Professor of the Theory and Practice of Medicine and Professor of Clinical Medicine.

ALBERT F. A. KING, M. D.,
Professor of Obstetrics and the Diseases of Women and Children and Dean Emeritus.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

E. A. DE SCHWEINITZ, M. D.,
Professor of Chemistry and Toxicology and Secretary-Treasurer.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

H. C. YARROW, M. D.,
Professor of Dermatology.

GEORGE BYRD HARRISON, M. D.,
Professor of Pædiatrics and Professor of Clinical Medicine.

HENRY L. E. JOHNSON, M. D.,
Professor of Gynecology and Professor of Clinical Gynecology.

THOMAS E. McARDLE, M. D.,
Professor of Minor Surgery.

WILLIAM K. BUTLER, M. D.,
Professor of Ophthalmology and Professor of Clinical Ophthalmology.

STERLING RUFFIN, M. D.,
Professor of Medical Jurisprudence.

CHARLES W. RICHARDSON, M. D.,
Professor of Laryngology and Otology and Professor of Clinical Laryngology and Otology.

GEORGE W. FOSTER, M. D.,
Professor of Mental Diseases.

EDMUND L. TOMPKINS, M. D.,
Professor and Clinical Professor of Nervous Diseases.

W. S. WASHBURN, M. D.,
Assistant Professor of Normal Histology.

A. R. SHANDS, M. D.,
Professor of Orthopedic Surgery.

JOHN VAN RENSSELAER, M. D.,
Professor of Surgical Pathology and Professor of Clinical Surgery.

WALTER REED, M. D.,
Professor of Pathology and Bacteriology.

W. F. R. PHILLIPS, M. D.,
Professor of Hygiene.

GEORGE N. ACKER, M. D.,
Professor of Clinical Medicine and Clinical Professor of the Diseases of Children.

G. WYTHE COOK, M. D.,
Professor of Clinical Medicine.

J. W. BOVÉE, M. D.,
Professor of Clinical Gynecology.

RANDOLPH B. CARMICHAEL, M. D.,
Professor of Clinical Dermatology.

T. RITCHIE STONE, M. D.,
Clinical Professor of Genito-Urinary Diseases.

OSCAR A. M. McKIMMIE, M. D., 1333 N Street, N. W.,
Examiner of Applicants for Matriculation.

**Demonstrators.**

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

E. G. SEIBERT, M. D.,
Demonstrator of Chemistry.

FRANCIS P. MORGAN, M. D.,
Assistant Professor of Pharmacology and Assistant to the Chair of Materia Medica and Therapeutics.

L. W. GLAZEBROOK, M. D.,
Curator of the Museum.

W. S. WASHBURN, M. D.,
Demonstrator of Normal Histology.

W. F. R. PHILLIPS, M. D.,
JOHN R. WELLINGTON, M. D.,
PRESLEY C. HUNT, M. D.,
JAMES ROBB CHURCH, M. D.,
VIRGIL B. JACKSON, M. D.,
JAMES STUART, M. D.,
W. M. WOOSTER, M. D.,
GEORGE B. HEINECKE, M. D.,
A. B. HOOE, M. D.,
Assistant Demonstrators of Anatomy.

GEORGE B. HEINECKE, M. D.,
LINCOLN JOHNSON, M. D.,
WILLIAM O. WETMORE, M. D.,
Prosectors to the Chair of Anatomy.

JOHN R. WELLINGTON, M. D.,
FRANK LEECH, M. D.,
Demonstrators of Minor Surgery.

EDWARD E. MORSE, M. D.,
Demonstrator of Obstetrics.

JAMES CARROLL, M. D.,
MARION DORSET, M. D.,
Demonstrators of Pathology and Bacteriology.

T. A. CLAYTOR, M. D.,
Assistant to the Chair of Theory and Practice of Medicine.

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The Seventy-sixth Course of Lectures begins on Wednesday, September 29, 1897.

The Introductory Lecture of the Course will be delivered by Prof. W. P. Carr on the 29th of September, and the regular lectures will continue throughout the season, beginning at 5.30 p. m. of each week day.

The system of instruction adopted by the Medical Department of this University includes lectures on Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Surgery, Obstetrics, the Theory and Practice of Medicine, Hygiene, Bacteriology, Otology, Laryngology, Gynecology, Dermatology, Ophthalmology, Mental Diseases, Medical Jurisprudence, Nervous Diseases, Pædiatrics, Minor Surgery, Histology, Pathological Histology, Orthopedic Surgery, and Surgical Pathology.

These lectures are combined with clinical instruction in the various hospitals and dispensaries of the city. In these clinics the student is made familiar with the methods of examining patients, analyzing symptoms, making a diagnosis and prognosis of the cases, and recording medical histories. He is also taught to prescribe medicines and observe their effects, and to perform surgical operations.

Laboratory instruction is given in Chemistry, Histology and Pathological Histology, Bacteriology and Pharmacology.

## University Lectures.

Students of the Medical School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than Law lectures, given in the University Hall by applying to the Dean.

## Advantages of Washington for Medical Study.

LIBRARIES, ARMY MEDICAL MUSEUM, NATIONAL MUSEUM, ETC.

The location of the University at the seat of the National Capital affords several striking advantages to the medical student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office, all of which contain rare and costly works in every department of science and literature. The Army Medical Museum is also open for inspection daily from 9 to 3 o'clock. With its unrivaled collection of anatomical and pathological specimens, illustrating normal anatomy and the results of disease in every form, and an almost unlimited number of other preparations showing the effect of gunshot wounds and surgical injuries of every kind, this Museum presents a field for study superior to any other institution of the kind, either in this country or Europe.

Apart from these considerations, students from a distance have the opportunity of spending a winter profitably at the seat of the National Government during the sessions of Congress, the college lectures beginning at 5.30 in the evening. Ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and, of special interest to the medical student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package in which they are imported or marketed to the delicate alkaloid constituting the active principle.

Of great interest also are the Government Botanical Gardens and the grounds of the Agricultural Department, where the student of botany may find a rare collection of medicinal plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of many curious medical and surgical instruments may be daily inspected from 9 to 3 o'clock, thus affording to the student an opportunity of studying the mechanical contrivances used in medicine, surgery, and obstetrics that is not to be obtained in any other city.

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## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Surgery.

PROFESSOR THOMPSON,

One of the Attending Surgeons to the Children's Hospital and to the Garfield General Hospital.

The course will embrace Didactic Lectures upon the Principles and Practice of Surgery, and, as far as practicable, Clinical Instruction at the College.

Professor THOMPSON being the attending Surgeon of both the Children's Hospital and the Garfield Hospital, students are offered the opportunity for Clinical Instruction in these Institutions.

Every effort will be made to teach Surgery in accordance with the latest developments of scientific research. At the College operations will be performed upon the cadaver, and the use of all important surgical instruments and appliances will be demonstrated in the same manner.

MINOR SURGERY.—Practical class instruction will be given by Professor McArdle and his Assistants in the application of splints, dressings, etc., for the various surgical diseases and injuries.

### Theory and Practice of Medicine.

PROFESSOR JOHNSTON,

One of the Consulting Physicians to the Children's Hospital, to the Garfield Hospital, and to the Central Dispensary and Emergency Hospital.

The Course of Lectures on the Theory and Practice of Medicine begins with the consideration of the pathological anatomy and symptomatology of the general morbid processes, which occur in many diseases, and to which all the structures of the body are liable. General or constitutional diseases and local diseases, or diseases of organs, are described in order.

As the subjects taught from the Chair are so numerous and cover so wide a field, two years are required to complete the course. The lectures of each year, therefore, form a distinct and complete series, and it is necessary for the student to follow attentively the Lectures during two successive years in order to finish his studies in this branch.

The courses on Histology and Pathological Histology cannot be neglected without serious detriment to progress, and are absolutely necessary to a complete understanding of the studies of this Chair. They are considered obligatory studies.

The hospitals and dispensaries of the city afford abundant opportunity for the observation of disease, and no chance should be lost to gain a practical knowledge of the methods of examining cases and of the art of diagnosis. The student should also make an effort to study morbid anatomy by witnessing as many autopsies as is possible, for in this way only can he acquire definite and clear ideas of the appearance of morbid tissues.

## Obstetrics and the Diseases of Women and Children.

PROFESSOR KING,

One of the Consulting Physicians to the Children's Hospital.

This Course will comprise a series of Lectures on the Science and Practice of Midwifery, together with additional Lectures on Gynecology. The main purpose of the Lecturer will be to explain, impress, and simplify the matters to be studied in the books, so as to render them more easily intelligible, and hence more pleasing and satisfactory to the student. With this view the Lectures will be illustrated by diagrams, models, natural preparations, manikins, and instruments.

Mathieu's new elastic manikin, for demonstrating obstetrical operations, has been added to the illustrative apparatus.

Dr. EDWARD E. MORSE will conduct a course of Operative Obstetrics upon the manikin, which every student of the fourth year class will be *required* to attend before being admitted to the final examination unless he present official evidence of having attended a similar course of instruction in some other institution.

In the Department of Gynecology the various instruments and appliances required in treating the Diseases of Women will be exhibited and their uses fully explained.

## Materia Medica and Therapeutics.

PROFESSOR PRENTISS,

One of the Consulting Physicians to the Children's Hospital and to the Central Dispensary and Emergency Hospital.

In the course of instruction pertaining to this Chair especial prominence will be given to the Physiological action of medicines and their therapeutic uses.

The value of a knowledge of Pharmacy and of the Natural History and Chemical Relations of the Materia Medica is not overlooked, but time does not admit of their being considered in great detail in the lecture-room. They are rather proper subjects for recess study.

The art of prescribing will have a place in the consideration of individual drugs, particularly with reference to appropriate combinations, much of the success of the practitioner depending upon the practical application of his knowledge in the sick room.

It will be the endeavor of Professor Prentiss to make his instruction as practical as possible. The lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmacological Laboratory exists in connection with the Chair of Materia Medica and Therapeutics, a brief description of which is given below.

## Anatomy.

PROFESSOR SHUTE,

Ophthalmic Surgeon to the Washington Hospital for Foundlings and to the South Washington Free Dispensary.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

Sufficient knowledge of the anatomical structure of the human body to qualify one for the practice of medicine may be acquired during the two courses of Lectures from the Chair, which each student attends, if at the same time he do his duty in the dissecting-room.

The Lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also

be employed constantly to present photographic views of many regions of the body.

Special attention will be given during the course to the surgical and medical relations of human anatomy, which are of so great importance in the practice of the Medical Profession.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors will prepare the subject for the lecturer.

The Demonstrator of Anatomy and his assistants give their personal attention to the students in the dissecting-room.

PRACTICAL ANATOMY.—The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied at a moderate price, only sufficient to cover the expense of procuring and preparing it. The room is open both during the day and night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who is present *at stated hours* to give personal attention to the students and properly instruct them in their dissections. In the absence of the Demonstrator one of his assistants will be present to instruct the classes.

## Chemistry and Toxicology.

PROFESSOR DE SCHWEINITZ,

**Chief Chemist of the Biochemic Laboratory, Bureau of Animal Industry, Department of Agriculture.**

This course embraces—

A short discussion of the principles of physics in their relation to chemistry, the principles of chemical philosophy, the laws of chemical combination and affinity.

The elements, metals and non-metals; their methods of isolation, properties, compounds, and reactions, will be studied.

Due attention will be given to organic chemistry, especially those compounds that are of use in medicine.

Laboratory instruction will be given in the general methods of qualitative and quantitative analysis, toxicology, urinie analysis, water analysis, and special clinical analyses.

Opportunity for advanced work in biochemistry will be afforded.

## Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a thorough, scientific, and practical manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial emphasis will be given to those truths that have a practical value.

Physiological anatomy will receive especial attention, and will be illustrated by charts, diagrams, working models, and anatomical specimens in all cases and by demonstrations upon anæsthetized living animals when necessary to a thorough understanding of the subject. Physiological anatomy will also be taught by Professor MOORE in the Laboratory and an opportunity will be given students to do practical physiological work as far as their time will permit.

## Dermatology.

PROFESSOR YARROW.

Professor YARROW will give a course of Lectures on this branch, illustrated by diagrams, models, and the exhibition of cases.

## Pædiatrics.

PROFESSOR HARRISON,

In Charge of the Department of General Medicine, Central Dispensary and Emergency Hospital.

Professor HARRISON will lecture upon diseases of infants and children and the importance of their proper management by diet and hygiene.

## Gynecology.

PROFESSOR JOHNSON,

In Charge of the Department of Gynecology, Central Dispensary and Emergency Hospital.

Professor JOHNSON will illustrate his lectures upon the diseases peculiar to women by clinical demonstrations at the hospital.

## Minor Surgery.

PROFESSOR McARDLE,

One of the Assistant Physicians to the Children's Hospital.

Professor McARDLE'S course in Minor Surgery will consist of lectures and practical demonstrations. Under the supervision of his assistants, the students will apply themselves the various splints, bandages, surgical dressings, etc.

## Ophthalmology.

PROFESSOR BUTLER,

In Charge of the Lutheran Eye and Ear Infirmary.

Professor BUTLER will give a didactic course on this subject, together with clinical instruction at the Lutheran Eye and Ear Infirmary.

## Medical Jurisprudence.

PROFESSOR RUFFIN,

One of the Visiting Physicians to the Home for Incurables.

Professor RUFFIN will deal with the relations of Physicians to matters under legal investigation. This course will cover as fully and practically as possible the more important subjects of forensic medicine. Students will be taught how to give expert testimony and how to conduct themselves as medical witnesses.

## Laryngology and Otology.

PROFESSOR RICHARDSON,

Laryngologist to the Providence Hospital.

This course will comprise lectures on diseases of the nasal passages, pharynx, larynx, and also the ear.

Practical instruction will be given in the use of the laryngoscope and other instruments required in these special branches.

### Mental Diseases.

PROFESSOR FOSTER,

One of the Assistant Physicians to the Government Hospital for the Insane, St. Elizabeth.

A series of lectures will be given upon the subject of insanity in its varied forms. Clinical instruction will also be given at the hospital.

### Nervous Diseases.

PROFESSOR TOMPKINS,

In charge of the Department of Nervous Diseases at the Central Dispensary and Emergency Hospital.

Professor TOMPKINS will lecture upon the more common and important of these affections.

### Surgical Pathology.

PROFESSOR VAN RENSSELAER,

One of the Surgeons to the Garfield Hospital.

Dr. VAN RENSSELAER will give a series of lectures upon the Pathological Anatomy of Surgical Diseases and Injuries and upon Surgical Bacteriology, illustrated by means of charts and photographs.

### Orthopedic Surgery.

PROFESSOR SHANDS.

This course will embrace didactic lectures on the Pathology, Etiology, Course and Termination of all Chronic Joint Diseases, and, as far as practicable, with clinical instruction of treatment of the same according to the most modern orthopedic methods.

Special attention will be given to the correction of all deformities, either acquired or congenital, by both mechanical and operative measures; also practical illustrations as to applications of all the most modern orthopedic appliances.

Practical instruction will be given in the application and use of plaster of paris in treatment of Pott's Disease, Scoliosis, Club Feet, etc.

## Hygiene.

PROFESSOR PHILLIPS,

In charge of the Section of Climatology and Editor of *Climate and Health*, U. S. Weather Bureau.

The course in hygiene will be directed to teaching the relations of habits and surroundings to health, and the approved methods for making both habits and surroundings contribute to the preservation of health and the prevention of disease, and will comprise the consideration of the laws of hygiene as applied to the individual and to the community.

## Histology.

ASSISTANT PROFESSOR WASHBURN.

The study of Histology is compulsory for students in the second year of their course. Special attention is given to the manipulation of the microscope and to that part of the technique necessary for an intelligent study of tissues. This is followed by a systematic study of the cellular structure of the elementary tissues and organs of the body. The histological laboratory is equipped with microscopes and accessory apparatus necessary for carrying out a thoroughly practical course of study in this subject. Examinations are held at the close of the session.

## Pathology and Bacteriology.

PROFESSOR REED,

Curator of the Army Medical Museum and Professor of Clinical and Sanitary Microscopy in the Army Medical School.

The course in Pathology begins with the study of inflammation, and takes up, in regular order, the pathological histology of the different tissues and organs of the body. Microscopical sections are given to be stained, mounted, and carefully studied and drawn.

Opportunities will be afforded to witness post-mortem examinations from time to time, which is considered a part of the pathological course.

In connection with the demonstration of fresh pathological material, use will be made of frozen microscopical sections of the fresh specimens.

In addition to the foregoing, examination of blood and urine is included as a part of the course in Pathology.

The Bacteriological course will consist of practical work in the bacteriological laboratory. The student is here taught the preparation of culture media, the principles of disinfection and sterilization, and the methods of cultivating, staining, and studying bacteria. Familiarity with the pathogenic bacteria is considered the most important part of this course.

### Pharmacology.

ASSISTANT PROFESSOR MORGAN.

Instruction in this branch will be confined to the laboratory. The students will be taught the method of making the different Pharmaceutical Preparations, such as tinctures, fluid extracts, syrups, enfusions, and the like.

They will also be taught the compounding of prescriptions, the proper excipients for pills, incompatibles, especially such as produce dangerous compounds, and will be expected actually to compound working formulæ.

### Laboratory Instruction.

The new laboratories have been furnished with the necessary apparatus and with all modern appliances for practical instruction in Chemistry, Bacteriology, Normal and Pathological Histology, and Pharmacology, as above described.

During the past year the Faculty have prepared a room for a Pathological Museum and equipped it with a large number of interesting and valuable specimens. Dr. L. W. Glazebrook, the deputy coroner of the District of Columbia, has been made Curator of the Museum, and from time to time adds valuable specimens to the Museum.

### Clinical Instruction.

Attendance upon Clinical Instruction in Medicine and Surgery, during at least two years, *is required*, and upon other clinics as indicated by the special clinical card, and when the student presents himself for examination a certificate to this effect must be furnished.

GARFIELD HOSPITAL.—Clinical Lectures will be given regularly during the session by Professor THOMPSON on Surgery, and by Professors ACKER and COOK on Medicine. A great variety of medical and surgical diseases

is to be seen in this institution, affording abundant material for clinical diagnosis and operative surgery.

CHILDREN'S HOSPITAL.—A weekly course of Medical and Surgical Clinics will be given by Professors W. W. JOHNSTON, THOMPSON, and ACKER. An opportunity is here afforded for observing all the medical and surgical diseases, injuries, etc., to which children are liable. The Dispensary service of the Hospital is very large and instructive.

CENTRAL DISPENSARY AND EMERGENCY HOSPITAL.—Professors HARRISON, with Dr. SHANDS, in charge of the department of general medicine, TOMPKINS, in charge of nervous diseases, and H. L. E. JOHNSON, in charge of the department of diseases of women, will conduct courses of instruction in their respective branches; also Dr. CARMICHAEL, in dermatology, and Dr. STONE, in genito-urinary diseases.

PROVIDENCE HOSPITAL.—Clinical instruction, both medical and surgical, is given by the staff of this institution. Gynecological clinics by Professor J. W. BOVEE.

LUTHERAN EYE AND EAR INFIRMARY.—The diseases of the eye and ear in this hospital will be exhibited during the clinics of Professor BUTLER.

## Requirements for Matriculation and Graduation.

I. Matriculants will be required to show that they are fitted, by previous education, for the study of medicine, and for this purpose they must either submit themselves to an examination or in lieu thereof present a satisfactory certificate of their attainments from some college.

Should an examination be necessary, it will comprise the following subjects:

1. English composition.
2. Translation of easy Latin prose.
3. Elements of Algebra or Higher Arithmetic.
4. Elementary Physics.

Students conditioned or unable to undergo the examination in Latin or in Elementary Physics may obtain instruction on these subjects during the Freshman year, and on passing a satisfactory examination before the beginning of the second year will be admitted to matriculation.

Students desiring instruction in Latin, Physics, etc., may obtain it from Dr. O. A. M. MCKIMMIE, 1333 N Street, N. W., to whom they are referred for particulars as to the arrangement of time, fees, etc.

II. Candidates for the degree of Doctor of Medicine must have attended four courses of lectures, the subjects arranged as follows:

FIRST YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas.

Materia Medica and Pharmacology.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Practical Anatomy.—Dissection-room open during the day and until 12 o'clock at night.

Examination at the end of the year upon the above-named subjects.

SECOND YEAR.

Anatomy.—Two lectures per week before Christmas; three lectures per week after Christmas.

Physiology.—Two lectures per week before Christmas; three lectures per week after Christmas.

Chemistry.—Three lectures per week before Christmas; two lectures per week after Christmas; four hours laboratory work.

Materia Medica and Pharmacology.—Three lectures per week before Christmas; two lectures per week after Christmas; one hour laboratory work.

Histology.—Laboratory.

Practical Anatomy.—Dissection-room open all day and until 12 o'clock at night.

Examination at the end of this year upon the above-named subjects.

THIRD YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Two lectures per week before Christmas; three lectures per week after Christmas.

Obstetrics—Three lectures per week before Christmas; two lectures per week after Christmas.

Minor Surgery.—One lecture per week from October 7 to December 16, bandaging, etc., in the manikin-room.

Dermatology.—One lecture per week from January 4 to March 15.

Ophthalmology.—One lecture per week from October 5 to December 7.

Bacteriology and Pathology.—Eight hours laboratory work per week.

Surgical Pathology.—One lecture per week from October 2 to December 4.

Clinics.

Examination on the above-named subjects at the end of the year.

FOURTH YEAR.

Surgery.—Three lectures per week before Christmas; two lectures per week after Christmas.

Medicine.—Two lectures per week before Christmas; three lectures per week after Christmas.

Obstetrics.—Three lectures per week before Christmas; two lectures per week after Christmas.

Gynecology.—One lecture per week from January 6 to March 10.

Mental Diseases.—One lecture per week from January 4 to March 15.

Medical Jurisprudence.—One lecture per week from October 7 to December 16.

Nervous Diseases.—One lecture per week from January 8 to March 12.

Pædiatrics.—One lecture per week from October 4 to December 6.

Otology and Laryngology.—One hour per week from November 1 to December 20, and from January 3 to March 21.

Orthopedic Surgery.—One lecture per week from January 8 to March 12.

Hygiene.—One lecture per week from January 5 to March 9.

Clinics.

Final examination at the close of the fourth year upon the above-named subjects.

## ORDER OF LECTURES, DAILY.—FIRST YEAR, 1897-'98.

### BEFORE CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | | CHEMISTRY. Lower Room. | | CHEMISTRY. Lower Room. | | CHEMISTRY. Lower Room. |
| 6.30 | | MATERIA MEDICA AND THERAPEUTICS. Lower Room. | ANATOMY. Upper Room. | MATERIA MEDICA AND THERAPEUTICS. Lower Room. | | MATERIA MEDICA AND THERAPEUTICS. Lower Room. |
| 7.30 | PHYSIOLOGY. Upper Room. | CHEMISTRY. Laboratory. | PRACTICAL ANATOMY. | CHEMISTRY. Laboratory. | PHYSIOLOGY. Lower Room. | ANATOMY. Upper Room. |
| 8.30 | PRACTICAL ANATOMY. | | | | PRACTICAL ANATOMY. | PHARMACOLOGY. |

### AFTER CHRISTMAS.

| HOURS | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | | CHEMISTRY. Lower Room. | PHARMACOLOGY. | | | CHEMISTRY. Lower Room. |
| 6.30 | | MATERIA MEDICA. Lower Room. | ANATOMY. Upper Room. | | ANATOMY. Upper Room. | MATERIA MEDICA. Lower Room. |
| 7.30 | ANATOMY. Upper Room. | CHEMISTRY. Laboratory. | PHYSIOLOGY. Lower Room. | PRACTICAL ANATOMY. | PHYSIOLOGY. Lower Room. | CHEMISTRY. Laboratory. |
| 8.30 | PHYSIOLOGY. Lower Room. | | | PRACTICAL ANATOMY. | | |

## ORDER OF LECTURES, DAILY.—SECOND YEAR, 1897-'98.

### BEFORE CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | HISTOLOGY. Laboratory. | CHEMISTRY. Lower Room. | PRACTICAL ANATOMY. | CHEMISTRY. Lower Room. | HISTOLOGY. Laboratory. | CHEMISTRY. Lower Room. |
| 6.30 | HISTOLOGY. Laboratory. | MATERIA MEDICA AND THERAPEUTICS. Lower Room. | ANATOMY. Upper Room. | MATERIA MEDICA AND THERAPEUTICS. Lower Room. | HISTOLOGY. Laboratory. | MATERIA MEDICA AND THERAPEUTICS. Lower Room. |
| 7.30 | PHYSIOLOGY. Upper Room. | CHEMISTRY. Laboratory. | PRACTICAL ANATOMY. | CHEMISTRY. Laboratory. | PHYSIOLOGY. Lower Room. | ANATOMY. Upper Room. |
| 8.30 | | CHEMISTRY. Laboratory. | | CHEMISTRY. Laboratory. | | PHARMACOLOGY. |

### AFTER CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | HISTOLOGY. Laboratory. | CHEMISTRY. Lower Room. | PHARMACOLOGY. | HISTOLOGY. Laboratory. | PRACTICAL ANATOMY. | CHEMISTRY. Lower Room. |
| 6.30 | HISTOLOGY. Laboratory. | MATERIA MEDICA. Lower Room. | ANATOMY. Upper Room. | HISTOLOGY. Laboratory. | ANATOMY. Upper Room. | MATERIA MEDICA. Lower Room. |
| 7.30 | ANATOMY. Upper Room. | CHEMISTRY. Laboratory. | PHYSIOLOGY. Lower Room. | | PHYSIOLOGY. Lower Room. | CHEMISTRY. Laboratory. |
| 8.30 | PHYSIOLOGY. Lower Room. | CHEMISTRY. Laboratory. | | | | CHEMISTRY. Laboratory. |

## ORDER OF LECTURES, DAILY.—THIRD YEAR, 1897-'98.

### BEFORE CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | SURGERY. Upper Room. | | SURGERY. Upper Room. | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | (Oct. 5 to Dec. 7.) OPHTHALMOLOGY. Upper Room. | OBSTETRICS. Lower Room. | | OBSTETRICS. Upper Room. | (Oct. 2 to Dec. 4.) SURGICAL PATHOLOGY. Upper Room. |
| 7.30 | BACTERIOLOGY. Laboratory. | PRACTICE. Lower Room. | BACTERIOLOGY. Laboratory. | PRACTICE. Lower Room. | BACTERIOLOGY. Laboratory. | |
| 8.30 | BACTERIOLOGY. Laboratory. | | BACTERIOLOGY. Laboratory. | (Oct. 7 to Dec. 16.) MINOR SURGERY AND BANDAGING. Special Room. | BACTERIOLOGY. Laboratory. | |

### AFTER CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | SURGERY. Upper Room. | | | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | | | | OBSTETRICS. Lower Room. | |
| 7.30 | PATHOLOGY. Laboratory. | PRACTICE. Lower Room. | PATHOLOGY. Laboratory. | PRACTICE. Lower Room. | PATHOLOGY. Laboratory. | PRACTICE. Lower Room. |
| 8.30 | PATHOLOGY. Laboratory. | (Jan. 4 to March 15.) DERMATOLOGY. Lower Room. | PATHOLOGY. Laboratory. | | PATHOLOGY. Laboratory. | |

## ORDER OF LECTURES, DAILY.—FOURTH YEAR, 1897-'98.

### BEFORE CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | SURGERY. Upper Room. | | SURGERY. Upper Room. | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | | OBSTETRICS. Lower Room. | (Oct. 7 to Dec. 16.) MEDICAL JURISPRUDENCE. Upper Room. | OBSTETRICS. Upper Room. | |
| 7.30 | (Oct. 4 to Dec. 6.) PÆDIATRICS. Lower Room. | PRACTICE. Lower Room. | | PRACTICE. Lower Room. | | |
| 8 30 | (Nov. 1 to Dec. 20.) OTOLOGY AND LARYNGOLOGY. Lower Room. | | | | | |

### AFTER CHRISTMAS.

| HOURS. | MONDAY. | TUESDAY. | WEDNESDAY. | THURSDAY. | FRIDAY. | SATURDAY. |
|---|---|---|---|---|---|---|
| 5.30 | SURGERY. Upper Room. | | | | SURGERY. Upper Room. | |
| 6.30 | OBSTETRICS. Upper Room. | (Jan. 4 to March 15.) MENTAL DISEASES. Upper Room. | (Jan. 5 to March 9.) HYGIENE. Lower Room. | (Jan. 6 to March 10.) GYNECOLOGY. Upper Room. | OBSTETRICS. Lower Room. | (Jan. 8 to March 12.) NERVOUS DISEASES. Upper Room. |
| 7.30 | Jan. 3 to March 21.) OTOLOGY AND LARYNGOLOGY. Lower Room. | PRACTICE. Lower Room. | | PRACTICE. Lower Room. | | PRACTICE. Lower Room. |
| 8.30 | | | | | | (Jan. 8 to March 12.) ORTHOPEDIC SURGERY. Upper Room. |

## Clinical Instruction.

Surgical Clinics, by Professor THOMPSON, at Garfield Hospital, on Sunday at 11 a. m., and at the Children's Hospital at 2 p. m., during the entire course, and by Drs. VAN RENSSELAER and CARR at the Garfield and Emergency Hospitals.

Medical Clinics, by Professor JOHNSTON, from October to January; by Professor ACKER, at the Garfield Hospital, on Tuesday at 4 p. m., and by Professor G. WYTHE COOK, at the Garfield Hospital.

Clinics on the special branches will be given by Professor ACKER, at the Children's Hospital, from January to April; by Professor H. L. E. JOHNSON, at the Emergency Hospital, on Gynecology; by Professor J. W. BOVEE, at Providence, on Gynecology; by Professor RICHARDSON, on Laryngology and Otology, at the Lutheran Eye and Ear Infirmary; by Professor BUTLER, on the Diseases of the Eye, at the Lutheran Eye and Ear Infirmary, and by Professor TOMPKINS on the Diseases of the Nervous System, Dr. SHANDS in Medicine, Dr. CARMICHAEL in Dermatology, and Dr. T. R. STONE in Genito-urinary Diseases, at the Emergency Hospital.

When the student presents himself for graduation he must furnish a certificate from Drs. THOMPSON or VAN RENSSELAER that he has attended two full courses of instruction in clinical surgery, and from Drs. JOHNSTON, ACKER, or COOK that he has attended two full courses of clinical medicine.

III. Students of other institutions who have attended one course of lectures in any regular medical school will be placed upon the same footing with those who have attended one course in this College, and those who have attended two (or three) courses of lectures in any other regular college or colleges will rank with those who have attended two (or three) courses in this Institution, and the same privileges as regards examination will be extended to them—that is to say, they will be admitted respectively as second, third, or fourth year students after passing a satisfactory examination upon the subjects required of our own students during the first, second, and third years, as previously described.

IV. Candidates for graduation must have studied medicine four years. They must be of good moral character and at least twenty-one years of age.

V. The candidate must have dissected at least two sessions, during each of which he shall be required to dissect two "parts" of a subject, and it is recommended that he dissect three parts. He must have attended also two courses of clinical instruction.

VI. One month before the close of the session he shall enter his name with the Dean of the Faculty as a candidate for graduation, and at the end of the term present himself for examination. The examination will be both written and oral. The examination for the degree will be held at the end of the session in April.

The diploma is granted only at the Annual Commencement in May.

VII. Graduates of other accredited medical colleges must pass a satisfactory examination on the essential branches of medicine before receiving a diploma from this University.

VIII. Students who fail to pass the examinations in the spring will be allowed a reëxamination in the following fall.

## Fees, Regulations, etc.

For the session of 1897–1898 and thereafter the fee for each year (for new matriculants) will be $111. This covers all expenses, laboratories and dissection included. Of this amount at least $25 must be paid upon entrance and before beginning dissection.

A deposit will be required to defray the expense of apparatus destroyed in the chemical and other laboratories.

For *special courses* the following fees will be charged:

| | |
|---|---|
| Matriculation Fee, payable only once | $5 00 |
| Single Tickets | 25 00 |
| Practical Anatomy, by the Demonstrator | 10 00 |
| Laboratory tickets, each, per year | 10 00 |

Payment of the fees is required in all cases, and tickets must be taken out at the commencement of the session, *unless special arrangement be made with the Secretary-Treasurer to suit the convenience of the student.*

Fees are to be paid to the Secretary-Treasurer.

By virtue of a liberal endowment from the late Mr. W. W. Corcoran, this College is enabled to offer *six* free Scholarships.

*Two* of these Scholarships are open to the graduates of the several High Schools of the District of Columbia for competitive examination. These two Scholarships will be awarded to the two students whose averages are highest.

*Two* of the Scholarships are open, for competitive examination, to graduates of any reputable High School or College (preference being given to those in the District of Columbia), who shall give satisfactory written evidence of *pecuniary inability* and certificates of good moral

character and industry. These two Scholarships will be awarded to the two graduates whose averages are highest.

The remaining *two* of those Scholarships are open, for competitive examination, to students who, though not graduates of any High School or College, yet give satisfactory evidence that they are fitted by previous education for the study of medicine, and at the same time give satisfactory written evidence of *pecuniary inability* and certificates of good moral character and industry. These two Scholarships will be awarded to the two students whose averages are highest.

In addition to the above-mentioned six Corcoran Scholarships, the Faculty offer two Medical Missionary Scholarships, which shall be given to those applicants judged by the President of the University best qualified to enter upon the study of medicine for the purpose of becoming Medical Missionaries.

Applications should be addressed to the Dean and sent in not later than the first of September.

Graduates of other accredited Medical Colleges, after five years, are required to matriculate only. Prior to the expiration of five years the fee for a general ticket is $75.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States of America.

The prices of board range from $12 to $30 per month, and rooms may be obtained for $10 and upward per month, according to location, etc.

The College Building is situated opposite a Government reservation, at No. 1325 H Street, N. W., and is within half a square of three lines of street cars going to every part of the city.

Students desiring further information are requested to address

DR. D. K. SHUTE, *Dean*,
*1120 New York Avenue, N. W., Washington, D. C.*

Or—

DR. E. A. DE SCHWEINITZ,
*Secretary-Treasurer, 1325 H Street, N. W.*

## Prizes.

At the end of the term a General Examination Prize of *fifty dollars* will be awarded. It will be given to the candidate for graduation who shall pass the best general examination.

The Faculty will award two additional prizes—one for proficiency in *Clinical Medicine*, and one for proficiency in *Clinical Surgery*.

In addition to these, Professor H. C. Yarrow gives a prize for the best examination in Dermatology; Professor H. L. E. Johnson gives one for the best examination in Clinical Gynecology; Professor Sterling Ruffin gives one for the best examination in Medical Jurisprudence; Professor C. W. Richardson gives one for the best examination in Laryngology and Otology, and Professor E. L. Tompkins gives one for the best examination in Nervous Diseases.

At the Commencement, in May, 1896, the General Examination Prize was awarded to Robert L. Lynch, of Indiana; first honorable mention was made of Albert L. Lawrence, of Ohio; second honorable mention of Edwin P. Wolfe, of Iowa, and third honorable mention of Hanson T. A. Lemon, of the District of Columbia.

The Faculty Prize in Clinical Medicine was awarded to Albert L. Lawrence, of Ohio.

The Faculty Prize in Clinical Surgery was awarded to Hanson T. A. Lemon, of the District of Columbia.

The H. C. Yarrow Prize in Dermatology, the H. L. E. Johnson Prize in Clinical Gynecology, and the Sterling Ruffin Prize in Medical Jurisprudence were awarded to Robert L. Lynch, of Indiana.

The C. W. Richardson Prize in Laryngology and Otology was awarded to Marion Dorset, of Tennessee.

The E. L. Tompkins Prize in Nervous Diseases was awarded to Albert L. Lawrence, of Ohio.

### Graduates in Medicine, 1896.

| Name. | State. |
|---|---|
| Frank A. Barbour | Mississippi. |
| Marion Dorset | Tennessee. |
| Jas. M. Fairly | Mississippi. |
| W. A. Frankland | Virginia. |
| O. J. Gwynn | Colorado. |
| J. R. Hamilton | Texas. |
| A. B. Hooe | Virginia. |
| Montgomery Hunter | Virginia. |
| A. L. Lawrence | Ohio. |
| Hanson T. A. Lemon | District of Columbia. |
| R. L. Lynch | Indiana. |
| Jas. McIlhenny | District of Columbia. |
| E. W. Patterson | Ohio. |
| H. T. Penny, M. D. | Montana. |
| Delos N. Reeve | Iowa. |
| Henry M. Seltzer | Pennsylvania. |
| W. S. Scott | Maryland. |
| Edwin P. Wolfe | Iowa. |
| T. A. Whittington | Nebraska. |

## STUDENTS IN MEDICINE, 1896-'97.

### First-year Students.

| Name. | State. |
|---|---|
| B. F. Atherson, 1641 Tenth Street, N. W., | Georgia. |
| G. S. Baker, Mt. Vernon Flats, | South Carolina. |
| G. S. Barnes, 1517 I Street, N. W., | South Carolina. |
| W. H. Beard, 1305 N Street, N. W., | District of Columbia. |
| R. S. Beale, 7 Cook Place, N. W., | District of Columbia. |
| C. M. Beall, New Jersey Ave. and C Street, S. E., | District of Columbia. |
| D. F. Birtwell, 412 A Street, S. E., | Pennsylvania. |
| H. S. Brown, 230 North Capitol Street, | District of Columbia. |
| O. G. Brown, 34 B Street, N. E., | District of Columbia. |
| F. J. W. Brown, 928 New York Avenue, N. W., | Pennsylvania. |
| T. S. Carswell, 915 I Street, N. W., | Georgia. |

| Name. | State. |
|---|---|
| E. P. Copeland, 507 C Street, S. E., | District of Columbia. |
| W. S. Clarke, 1114 Eleventh Street, N. W., | New York. |
| J. F. Crawford, 720 Twenty-first street, N. W., | Kentucky. |
| F. M. Chamberlain, 1224 I Street, N. W., | Indiana. |
| A. J. Cummings, Chevy Chase, | Maryland. |
| C. W. Cuthbertson, 731 Fifth Street, N. W., | North Carolina. |
| F. B. Dixon, 1421 Twenty-ninth Street, N. W., | Maryland. |
| W. E. Dimelt, Alexandria, | Virginia. |
| R. A. Ford, 2224 Thirteenth Street, N. W., | District of Columbia. |
| H. S. Greene, 320 Q Street, N. W., | Vermont. |
| W. E. Griffith, 310 A Street, N. E., | Pennsylvania. |
| John D. Herr, 900 K Street, N. W., | Pennsylvania. |
| A. M. Hoadley, 345 Pennsylvania Avenue, N.W., | Virginia. |
| E. R. Huntington, 122 Sixth Street, S. E., | New York. |
| Charles Hughes, 913 I Street, N. W., | Pennsylvania. |
| D. C. Hutton, 407 Second Street, S. E., | North Carolina. |
| T. T. Johnson, 1307 F Street, N. E., | Michigan. |
| E. H. Johnson, 333 C Street, N. W., | District of Columbia. |
| E. E. Jones, 1940 Ninth Street, N. W., | District of Columbia. |
| Randolph Kleiner, Hyattsville, | Maryland. |
| W. V. Leach, 812 S Street, N. W., | Maryland. |
| J. A. Leonhardt, 1229 E Street, N. W., | Maryland. |
| A. H. Reed Lusby, 920 South Carolina Ave., S. E., | District of Columbia. |
| H. C. Macatee, 3 Thomas Circle, N. W., | Virginia. |
| R. B. Main, 2009 Massachusetts Avenue, N. W., | Massachusetts. |
| S. M. Mason, 1706 F Street, N. W., | Virginia. |
| H. M. Manning, 637 Maryland Avenue, N. E., | District of Columbia. |
| J. E. Mitchell, 805 D Street, S. W., | Maryland. |
| A. H. Murdoch, 1210 S Street, N. W., | Nebraska. |
| J. F. Mullally, 2153 D Street, N. W., | Rhode Island. |
| Alex. T. Nelson, Hotel Johnson, | Virginia. |
| J. J. Obear, 1309 Twentieth Street, N. W., | South Carolina. |
| M. D. Pollard, Alexandria, | Virginia. |
| E. C. Prentiss, 1218 Ninth Street, N. W., | District of Columbia. |
| I. L. Riggles, 445 O Street, N. W., | District of Columbia. |
| D. H. Reed, 1331 Eleventh Street, N. W., | North Carolina. |
| George M. Robinson, 1313 K Street, N. W., | Pennsylvania. |
| R. L. Russell, 10 Seventh Street, N. E., | District of Columbia. |
| C. T. Smith, 8 Grant Place, N. W., | Virginia. |

| Name. | State. |
|---|---|
| M. E. Stacks, 1515 Vermont Avenue, N. W., | Connecticut. |
| A. H. Steele, 1609 New Jersey Avenue, N. W., | District of Columbia. |
| J. W. Stewart, 915 I Street, N. W., | District of Columbia. |
| J. A. Taff, 116 D Street, N. W., | Pennsylvania. |
| B. T. Tiefenthaler, 516 Tenth Street, N. W., | Ohio. |
| E. S. Tucker, 431 Tenth Street, N. W., | Pennsylvania. |
| A. C. Walker, 202 Eighth Street, S. E., | Virginia. |
| W. R. Webb, 608 E Street, N. W., | Tennessee. |
| A. J. Westlake, 913 New Jersey Avenue, N. W., | Maryland. |
| J. M. Williams, 910 King Street, Alexandria, | Virginia. |

## Second-year Students.

| Name. | State. |
|---|---|
| C. H. Allen, 94 New York Avenue, N. W., | Tennessee. |
| W. F. Andrews, 1213 K Street, N. W., | Michigan. |
| S. S. Atkins, 930 First Street, N. W., | North Carolina. |
| N. I. Baron, 418 Massachusetts Avenue, N. E., | Alabama. |
| S. A. Blackman, Kensington, Maryland, | Kentucky. |
| Rich. Breaden, 222 Ninth Street, N. W., | Wisconsin. |
| G. M. Bradshaw, War Department, | Pennsylvania. |
| A. D. Butz, Washington Asylum Hospital, | Pennsylvania. |
| A. R. Butler, Civil Service Commission, | Oregon. |
| J. S. Cammon, 924 Fourteenth Street, N. W., | England. |
| G. L. Clayton, 436½ H Street, N. W., | Louisiana. |
| J. W. Clark, 908 Fifteenth Street, N. W., | District of Columbia. |
| P. M. Cox, 1300 Pennsylvania Avenue, N. W., | Maryland. |
| W. F. Dailey, 1701 Q Street, N. W., | Mississippi. |
| F. F. Fadeley, 2023 N Street, N. W., | Virginia. |
| R. Gibson, Alexandria, | Virginia. |
| F. E. Gibson, 927 I Street, N. W., | District of Columbia. |
| P. B. Graham, 3066 Q Street, N. W., | Maryland. |
| R. B. Grubbs, 1460 Corcoran Street, N. W., | Alabama. |
| Z. P. Gunion, 927 O Street, N. W., | District of Columbia. |
| R. A. Hales, 928 New York Avenue, N. W., | North Carolina. |
| F. D. Hester, 1419 Q Street, N. W., | Virginia. |
| F. C. Heath, 720 Tenth Street, N. W., | Maryland. |
| Sothoron Key, 1723 Ninth Street, N. W., | Maryland. |
| N. N. Herbert, 824 D Street, S. E., | District of Columbia. |

| Name. | State. |
|---|---|
| H. K. Hoades, 38 I Street, N. W., | New York. |
| Roy Letherman, 1415 Q Street, N. W., | District of Columbia. |
| A. T. Leith, 513 Thirteenth Street, N. W., | Wisconsin. |
| G. C. F. Lindenkohl, 19 Fourth Street, S. E., | District of Columbia. |
| O. J. Mason, 1203 Thirteenth Street, N. W., | New York. |
| H. A. May, 829 Ninth Street, N. W., | New York. |
| B. E. Marshall, 1305 R Street, N. W., | Vermont. |
| W. P. McKee, 809 Twenty-second Street, N. W., | District of Columbia. |
| R. A.W. McKelden, 1242 Maryland Avenue, N. E., | Maryland. |
| S. J. McMichel, 2110 K Street, N. W., | South Carolina. |
| R. L. Morgan, 1912 Sunderland Place, N. W., | Pennsylvania. |
| W. W. Medley, 145 E Street, S. W., | Virginia. |
| W. E. Imsgrave, Washington Barracks, | Tennessee. |
| H. N. North, St. Elizabeth, | District of Columbia. |
| H. F. Porter, 3035 O Street, N. W., | New York. |
| Joseph Perkins, 1213 New York Avenue, N. W., | Illinois. |
| D. W. Prentiss, 1218 Ninth Street, N. W., | District of Columbia. |
| H. M. Price, 429 Seventh Street, S. W., | District of Columbia. |
| A. A. Protzman, 639 Elliott Street, N. W., | West Virginia. |
| C. A. Ragan, 246 Eighth Street, N. E., | Tennessee. |
| P. C. Riley, 2010 Portner Place, N. W., | Maryland. |
| F. H. Reichelderfer, 1205 Q Street, N. W., | Ohio. |
| F. D. Slattery, 252 Eleventh Street, S. E., | District of Columbia. |
| M. J. Simmons, 155 E Street, S. E., | Maryland. |
| C. J. Sheridan, 102 Twenty-second Street, N. W., | New York. |
| W. T. Smith, 1404 L Street, N. W., | Georgia. |
| J. W. Stearnes, 1756 Madison Street, N. W., | District of Columbia. |
| H. H. Stromberger, 118 Seventh Street, S. E., | District of Columbia. |
| A. A. Taylor, 915 I Street, N. W., | Ohio. |
| J. C. Tappan, 507 B Street, S. E., | District of Columbia. |
| W. R. Ward, 1756 Pennsylvania Avenue, N. W., | District of Columbia. |
| W. C. Williams, 4th and N Streets, N. W., | Virginia. |
| G. W. Wimberly, 1412 Thirtieth Street, N. W., | Georgia. |

### Third Year Students.

| Name. | State. |
|---|---|
| G. K. Baier, 1002 Pennsylvania Avenue, N. W., | District of Columbia. |
| B. F. Blye, Jr., 115 Seventh Street, N. E., | New York. |
| E. Cook, 712 Fourth Street, S. E., | District of Columbia. |

| Name. | State. |
|---|---|
| F. P. Chapman, Civil Service Commission, | Texas. |
| C. A. Clemons, 1443 Corcoran Street, N. W., | New York. |
| A. F. Cook, 1215 I Street, N. W., | Virginia. |
| Thomas Dowling, Jr., 614 E Street, N. W., | District of Columbia. |
| W. N. Fisher, 1212 Ninth Street, N. W., | Virginia. |
| N. C. Gaynor, Post Office Department, | Kentucky. |
| N. H. Gallinger, Elsmere, | New Hampshire. |
| R. C. Gotta, 818 New Jersey Avenue, N. W., | Pennsylvania. |
| T. A. Groover, 1404 L Street, N. W., | Georgia. |
| W. W. Grier, 1223 K Street, N. W., | District of Columbia. |
| H. H. Graham, 305 H Street, N. W., | Ohio. |
| P. L. Gunckel, 231 Tenth Street, N. E., | Kansas. |
| C. N. Howard, 928 T Street, N. W., | Pennsylvania. |
| A. B. Herald, 1224 I Street, N. W., | Armenia. |
| P. W. Huntington, 1601 Thirtieth Street, N. W., | Connecticut. |
| C. S. Keyser, 2019 Massachusetts Avenue, N. W., | District of Columbia. |
| J. A. Koch, Garfield Hospital, | Illinois. |
| J. St. J. Lockwood, First and B Streets, S. W., | District of Columbia. |
| P. E. McDonell, Post Office Department, | Georgia. |
| M. J. McIntee, 1233 New Jersey Avenue, N. W., | Massachusetts. |
| F. H. Morhart, 228 Morgan Street, N. W. | Ohio. |
| C. O. Perry, 2020 G Street, N. W., | Virginia. |
| W. Rives, Box 194, City, | Maryland. |
| A. A. Rittenour, Alexandria, | Virginia. |
| F. H. Schultz, D. D. S., 917 Sixth Street, N. W., | Ohio. |
| G. H. Schwinn, Children's Hospital, | Connecticut. |
| H. W. Smith, 1515 Vermont Avenue, N. W., | Pennsylvania. |
| T. B. Snoddy, 1217 N Street, N. W., | Tennessee. |
| G. L. Sorrell, 620 F Street, N. W., | Virginia. |
| W. E. Sims, 628 Seventh Street, N. E., | South Carolina. |
| H. A. Selhausen, 510 D Street, S. E., | District of Columbia. |
| J. T. Sykes, 610 Eleventh Street, N. W., | District of Columbia. |
| J. M. Tracey, 465 I Street, N. W., | New York. |
| C. S. White, 1105 E Street, S. W., | District of Columbia. |
| G. Worstell, 436½ H Street, N. W., | Texas. |
| L. J. Wyeth, 2022 R Street, N. W., | Illinois. |
| R. F. Yarborough, 1300 Pennsylvania Ave., N. W., | Texas. |

## Fourth-year Students.

| Name. | State. |
|---|---|
| E. M. Chapman, 11 I Street, N. W., | Massachusetts. |
| J. Y. Curry, 1111 H Street, N. W., | Georgia. |
| G. S. Driver, 1342 N Street, N. W., | District of Columbia. |
| H. A. Dunn, Washington Asylum Hospital, | District of Columbia. |
| H. R. Garland, Coast Survey, | Vermont. |
| E. L. Goodall, 713 Fourteenth Street, N. W., | Vermont. |
| J. H. Ford, B. S., A. M., Garfield Hospital, | District of Columbia. |
| F. McG. Hartsock, 1014 Eighth Street, N. W., | District of Columbia. |
| R. H. Hardman, War Department, | Indiana. |
| P. C. Hutton, 487 Second Street, S. E., | North Carolina. |
| C. H. James, 109 C Street, S. E., | District of Columbia. |
| C. R. Johnson, 1449 N Street, N. W., | District of Columbia. |
| G. T. Jueneman, 310 Sixth Street, N. W., | District of Columbia. |
| J. E. Jones, 1213 O Street, N. W., | Ohio. |
| E. L. Le Merle, D. D. C., 1507 Eighth Street, N. W., | District of Columbia. |
| Chas. McCulloch, 713 Fourteenth Street, N. W., | Virginia. |
| N. P. Mills, 1015 L Street, N. W., | Maryland. |
| N. W. Matthews, 1751 Corcoran Street, N. W., | Louisiana. |
| N. J. Olds, 819 M Street, N. W., | Michigan. |
| C. Wesley Orr, 610 A Street, S. E., | Louisiana. |
| R. D. Pope, 10 Grant Place, N. W., | Illinois. |
| W. Pulsifer, 1412 Fifteenth Street, N. W., | Maine. |
| E. C. Rice, 418 Twelfth Street, N. W., | Massachusetts. |
| D. B. Street, 1102 Ninth Street, N. W., | District of Columbia. |
| G. H. Thomas, M. D., 1014 Massachusetts Ave., N. W., | West Virginia. |
| D. A. Welles, 2 I Street, N. W., | New Hampshire. |
| W. E. Whitson, 1527 Meridian Avenue, N. W., | District of Columbia. |
| R. M. Werdin, 1222 I Street, N. W., | District of Columbia. |

Total..... ..... 186

# THE DENTAL SCHOOL.

## The Faculty.

THE REV. BENAIAH L. WHITMAN, D. D.,
President.

J. HALL LEWIS, D. D. S.,
Professor of Dental Prosthetics and Dean of the Faculty.

HENRY C. THOMPSON, D. D. S.,
Professor of Operative Dentistry and President of the Faculty.

D. WEBSTER PRENTISS, M. D.,
Professor of Materia Medica and Therapeutics.

D. KERFOOT SHUTE, M. D.,
Professor of Anatomy.

EMIL A. DE SCHWEINITZ, M. D.,
Professor of Chemistry.

WILLIAM P. CARR, M. D.,
Professor of Physiology.

JONATHAN R. HAGAN, D. D. S.,
Professor of Oral Surgery.

STERLING RUFFIN, M. D.,
Demonstrator of Anatomy.

VERANUS A. MOORE, M. D.,
Professor of Normal Histology.

JONATHAN R. HAGAN, D. D. S.,
WILLIAM H. TRAIL,
Demonstrators in Charge of Infirmary.

WILLIAM L. CLARK, D. D. S.,
WALTER A. LOW, D. D. S.,
CHARLES R. RICE, D. D. S.,
R. E. L. HACKNEY, D. D. S.,
Assistant Demonstrators.

---

J. HALL LEWIS, D. D. S., DEAN,
1023 Vermont Avenue N. W. and 1325 H Street N. W., Washington, D. C.

EMIL A. DE SCHWEINITZ, M. D.,
Secretary-Treasurer, 1325 H Street N. W.

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## DENTAL DEPARTMENT.

### Annual Announcement of the Session of 1897-'98.

The Regular Course of Lectures begins on September 29, and continues seven months.

The Introductory Lecture of the Course will be delivered by Dr. J. Hall Lewis, on the above date, and the regular Lectures will continue throughout the session, beginning at 5.30 p. m. of each week day.

The Faculty of the Dental Department of this University announce that in order to become eligible for graduation the student must attend three full courses of seven months each, held in different years, with such exceptions as are hereinafter stated.

The subjects of the several courses are arranged as follows:

FIRST YEAR.—Anatomy, Physiology, Chemistry and Materia Medica, together with Practical Anatomy, Histology, Bacteriology, and such Infirmary work as is suitable for first-year students.

SECOND YEAR.—The subjects of the first year are continued, and to these are added Operative Dentistry and Prosthetic Dentistry, with more advanced Infirmary work.

THIRD YEAR.—This year is devoted *exclusively* to Operative and Prosthetic Dentistry and Oral Surgery. An examination is held at the end of each year on all subjects taught during that year.

As, however, no amount of scientific attainment can compensate for lack of manipulative skill, a large part of the student's time is devoted to actual practice in the Infirmary, for which purpose the large and centrally located College building gives ample opportunities.

The operating room fronts on one of the Government reservations, and thus has a full, unobstructed light, so desirable in dental operations. It is furnished with all necessary appliances that will enable a student to acquire the knowledge of office practice, as well as a diversity of clinical experience.

A large, comfortable, and well-lighted Dental Laboratory is supplied with all the requirements for the successful practice of Prosthetic Dentistry, and lockers are available for the safe-keeping of instruments belonging to the students.

The extracting room is separate from the others, and is fitted up for the proper administration of the various anæsthetics, under the immediate supervision of a demonstrator thoroughly skilled in their application.

Special attention is called to the thoroughness of the practical instruction in the Infirmary, which is under the immediate supervision of Professor LEWIS. Dr. HAGAN, the Demonstrator in charge, is in constant attendance during the entire term, directing and overseeing the operations of the students, who thus have the benefit of his many years of experience in Dental Practice.

The Infirmary is open every week day for nine continuous months (being closed during the months of July, August, and September), during which time an abundance of clinical material is readily available. In fact, fully as many patients present themselves as can possibly be attended to by the students.

The student has, therefore, the privilege of *twenty-seven months' actual practice* in the Infirmary, during which time he may become proficient in all those operations which the dental surgeon is ordinarily called upon to perform in office practice.

## GENERAL SKETCH OF THE SEVERAL LECTURE COURSES.

### Prosthetic Dentistry and Metallurgy.

PROFESSOR LEWIS.

In this Department the principles involved in the construction of artificial substitutes will be exhaustively considered, and the lectures supplemented by practical demonstrations of the subjects mentioned.

In addition to the more commonly used vegetable bases for artificial teeth, the use of Gold, Silver, and Platinum will be thoroughly taught, and Bridge Work, the construction of appliances for correcting Oral Irregularities, etc., will be carefully considered.

The modes of preparation, properties, etc., of the Metals and Alloys of particular interest to the Dentist will receive special attention.

Professor LEWIS will endeavor to make his instruction thoroughly practical, and to prepare the student for the actual every-day practice of Prosthetic Dentistry.

### Operative Dentistry, Dental Anatomy, and Pathology.

PROFESSOR THOMPSON.

This course embraces Lectures on the Special Anatomy and Physiology of the Teeth. The origin, growth, and eruption of the teeth receive minute attention, and will be illustrated as their importance demands.

The methods of treating, filling, and extracting teeth will not only receive attention in the lecture-room, but be demonstrated clinically by gentlemen whose reputations are fully established as most proficient operators. Dental Pathology and Therapeutics will receive extended consideration from this Chair.

### Chemistry.

PROFESSOR DE SCHWEINITZ.

The instruction in this Department embraces—

A short discussion of the principles of Physics in their relation to Chemistry, the principles of Chemical Philosophy, and the laws of Chemical Combination.

A study of the elements, metallic and non-metallic; the preparation, properties, and reaction of their different compounds and their application in Dentistry.

Organic Chemistry will be studied, special attention being paid to those organic compounds that are of practical use.

Laboratory instruction will be given in the determination of acids and bases, analyses of alloys, etc.

## Physiology.

PROFESSOR CARR.

Every effort will be made to teach this subject in a scientific manner. The ground will be fully covered by a two years' course of Lectures, and these Lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail.

Especial pains will be taken to emphasize those truths that have a known practical value.

## Materia Medica and Therapeutics.

PROFESSOR PRENTISS.

In the course of instruction pertaining to this Chair especial prominence will be given to the physiological action of medicines and their therapeutic uses.

It will be the endeavor of Professor PRENTISS to make his instruction as practical as possible. The Lectures will be supplemented by working prescriptions and blackboard illustrations, as occasion will admit.

From this Chair the student will be taught the use of the Metric System in Medicine.

A Pharmaceutical Laboratory is established in connection with this Chair, in which the students are taught the methods of making the different preparations, such as infusions, decoctions, tinctures, syrups, and the like.

They are also taught the compounding of prescriptions, the proper excipients for pills, incompatibles (especially such as produce dangerous compounds), and are expected to actually compound working formulæ.

## Anatomy.

PROFESSOR SHUTE.

This course of Lectures is arranged with the view of rendering the didactic instruction in Anatomy as full and complete as the limits of the session will allow.

The lectures will be illustrated by frequent reference to recent dissections and numerous drawings and diagrams. The sciopticon will also be employed constantly to present photographic views of many regions of the body.

Public oral examinations are conducted by the Lecturer from time to time.

The Prosectors to the Chair of Anatomy will prepare the subject for the Lecturer.

The Demonstrator of Anatomy and his Assistants give their personal attention to the students in the dissecting-room.

## Practical Anatomy.

The dissecting-room of this College is large, thoroughly ventilated, well lighted, and furnished with every requisite for the convenience and comfort of the student. Anatomical material is abundantly supplied free of charge to the student. The room is open both during the day and at night until 11 p. m., or even later on some occasions. It is under the supervision of the Faculty and the immediate direction of the Demonstrator of Anatomy, who, with his assistants, is present *at stated hours* to give his personal attention to the students and properly instruct his classes in their dissections.

## Oral Surgery.

PROFESSOR HAGAN.

A full course of Lectures upon the above subject will be given by Professor HAGAN, and arrangements have been made for Clinical Demonstrations in the Infirmary, in order to more thoroughly teach this interesting branch of General Dentistry.

## Histology.

The Histological Course embraces a thorough study of the general use of the microscope and a special examination of the origin and formation of the teeth, the minute parts of these organs, and the surrounding tissues.

## Bacteriology.

This course will embrace a comprehensive study of the bacteria of the mouth, which have relation to the diseases of that region.

## Requirements for Matriculation and Graduation.

*Matriculants* will be required to show, either by examination or by the exhibit of a diploma or a certificate from some reputable institution of learning, that they have received a good English education, according to the requirements of the National Association of Dental Faculties.

Dr. O. A. M. McKIMMIE, of the Columbian University, will conduct the entrance examination, when such is required, at 1333 N street N. W.

*Candidates for Graduation* must have attended three full Courses of Lectures, each of SEVEN months' duration, and three courses of Clinical instruction in this institution, during the regular winter term and in separate years, with the exceptions noted below.

The following is considered as an equivalent to one course in this College:

A diploma from a recognized medical school, undergraduate tickets of the same, or satisfactory evidence of having passed first-year examination in some other reputable dental school.

The following is considered as the equivalent of two courses in this College:

A diploma from a reputable dental college or evidence of having passed the second-year examination in the same.

Before becoming eligible for graduation, all medical graduates and students must take two full courses upon Operative and Prosthetic Dentistry, and conform to the usual Infirmary requirements.

Graduates from schools of pharmacy may enter the Junior Class after passing a satisfactory examination in the first-year studies.

Students are examined at the end of the regular course upon all subjects taught them during that course.

Should the student fail in his examination in the spring, he may be re-examined in the fall.

Students can go up for examination only in the spring and fall and upon the dates regularly selected for that purpose.

All fees must be paid and Infirmary requirements complied with before the student can present himself for examination.

Students must enter before or ten (10) days after the opening lecture for the regular Winter Course. They may register at any time during the nine months' Infirmary Course, and thus begin Infirmary practice at once upon payment of $25, which amount will be deducted from their tuition fees for the succeeding regular term.

The candidate must be examined upon all subjects taught in this School, with exceptions noted above, and before the examination he must *perform operations upon the natural organs in the Infirmary*, and present a well-constructed specimen of Dental mechanism *made by himself in the Dental Laboratory of the University*, which shall afterward be deposited in the College Museum.

In addition to the above requirements, the moral character and habits of the candidate, his industry and diligent attendance, will be taken into consideration. Notable negligence, immorality, and habitual absence from the lectures will, it is distinctly understood, preclude the candidate from attaining his degree, even though he may have acquired sufficient technical knowledge to pass a creditable examination. The reservation on the part of the Faculty of the right to make good moral character a prerequisite for graduation must not be overlooked.

## Faculty Prize.

A prize will be given by the Faculty to the graduate passing the best examination in *all* branches and having the best Infirmary record. At the last commencement the prize was awarded to Edward F. Conklin, of Rhode Island.

## Fees, etc.

Annual tuition fee..... $100 00

The above includes all the Tuition expenses. There are no *extras* whatever. The Dissection Material, Chemicals, Instruction in the Histological, Pharmaceutic, and Chemical Laboratories and Dental Infirmary are all furnished free of charge to the students.

Each student must furnish his own Books and Dental Instruments.

The student is required to make a payment upon registering, and twenty-five dollars must be paid before he can avail himself of Laboratory and Infirmary instruction.

All fees should be paid to the Secretary-Treasurer, Dr. DE SCHWEINITZ, at 1325 H street.

Candidates for graduation in the Dental School who desire to obtain a medical degree thereafter may be admitted to the medical examination on the primary branches at the termination of their second Dental Course, provided they give written notice to the Dean of their intention so to do one month before the spring examinations, and provided also that they have complied with the requirements of the Medical School as regards Dissection, the study of Histology, etc.

The degrees are conferred by the authority of the Columbian University, incorporated by act of Congress of the United States.

The prices of board and all other personal expenses are as reasonable in Washington as in other large cities of the Union.

Students requiring further information are requested to communicate with the Dean of the Faculty.

J. HALL LEWIS, DEAN,
1023 *Vermont Avenue, N. W., Washington, D. C.*

The Dean can be seen personally at 1023 Vermont avenue, on any week day, from 3.30 to 4.30 p. m., and also at the College Building, 1325 H street, N. W., on Monday, Wednesday, and Friday of each week from October 1 to May 1, between the hours of 6.30 and 8 o'clock p. m.

## Libraries, Army Medical Museum, etc.

The location of the University at the seat of the National Capital affords several striking advantages to the dental student. He has free access to the Libraries of Congress, of the Army Medical Museum, of the Smithsonian Institution, and of the Patent Office—all of which contain rare and costly works in every department of science and literature.

The Congressional Library contains copies of all the important dental works ever published, and the student has free access to these, for study or reference, on any week day from 9 to 3 o'clock.

The Army Medical Museum, situated on B street, corner Seventh street, S. W., is also open for daily inspection, with its unrivaled collec-

tion of pathological specimens illustrating the result of disease in every form. It also contains almost numberless crania of every human nationality, by an examination of which the student can find many dentures of theoretical perfection, and observe the effect of civilization and race admixture upon the dental organs.

Apart from these considerations, students from a distance have the opportunity of spending the winter profitably at the seat of the National Government during the session of Congress. The College lectures beginning at 5.30 in the evening, ample time is afforded during the term for visiting the public buildings, works of art, and other places of interest to a stranger. Prominent among these may be mentioned the new National Museum, established in connection with the Smithsonian Institution. Here may be seen fully classified collections illustrating the arts and industries of the country, and, of special interest to the medical and dental student, there is found in this Museum the most complete and best arranged collection of Materia Medica in the world. The drugs are shown in all their processes of manufacture, from the original package to the delicate alkaloid constituting the active principle.

Of great interest, also, are the Government Botanical Gardens and the Grounds of the Agricultural Department, where the student of Botany may find a rare collection of medical plants, from which are derived many of the preparations of the Materia Medica.

At the United States Patent Office models of every conceivable form of dental instruments may be daily inspected, thus affording to the student an invaluable opportunity for studying the mechanical contrivances used in dental practice that is not to be obtained in any other city.

## University Lectures.

Students of the Dental School are admitted, without further fee, to the University Lectures. When qualified to profit by them, they can secure admission to such lectures, other than Law Lectures, given in the University Hall, by applying to the Dean.

## Students of Dentistry.

Students will be classified and the absentees marked in the Special Dental Catalogue.

| Name. | State. |
|---|---|
| William F. Ankeney, 416 K Street, N. W., | Maryland. |
| Samuel E. Aler, 611 M Street, N. W., | West Virginia. |
| Julius J. Augenstein, 712 Fifth Street, N. W., | District of Columbia. |
| Edwin H. Bogley, 1507 Twenty-eighth St., N.W., | District of Columbia. |
| Arthur Bennett, 1111 H Street, N. W., | Georgia. |
| Fenton Bradford, | Virginia. |
| Damon A. Binkert, 416 K Street, N. W., | Illinois. |
| Paris E. Prengle, 450 P Street, N. W., | Maryland. |
| George E. Boynton, 913 I Street, N. W., | New York. |
| Thomas B. Cochran, Alexandria, | Virginia. |
| Charles W. Cuthbertson, 731 Fifth Street, N. W., | North Carolina. |
| Emmett M. Carter, 937 Virginia Avenue, S. W., | District of Columbia. |
| William Creamer, 814 G Street, S. E., | District of Columbia. |
| Eppa H. Coumbe, 1312 Ninth Street, N. W., | Virginia. |
| J. C. Dunne, 1309 H Street, N. W., | New York. |
| James D. Eggleston, M. D., 2500 Fourteenth St., N. W. | New Jersey. |
| William C. Fisher, 3250 O Street, N. W., | District of Columbia. |
| Charles H. Fisher, 412 Sixth Street, N. W., | New York. |
| Thomas W. Fred, 728 Eighth Street, N. W., | Virginia. |
| J. Allen Gorman, 223 Ninth Street, N. E., | North Carolina. |
| Hopkins Gibson, 906 I Street, N. W., | West Virginia. |
| Thomas J. Gates, 114 Sixth Street, S. E., | Maryland. |
| R. B. Grubbs, Agricultural Department, | Alabama. |
| George E. Hurley, 923 H Street, N. W., | Massachusetts. |
| James G. Haskell, 906 I Street, N. W., | Kentucky. |
| W. B. Hoofnagle, 821 C Street, S. E., | Maryland. |
| Fessenden F. Hicks, 724 Twelfth Street, N. W., | Maryland. |
| H. W. Johnson, 2011 S Street, N. W., | District of Columbia. |
| Johannes A. Kauschke, 2106 I Street, N. W., | Germany. |
| William M. Kemball, 213 L Street, N. W., | District of Columbia. |
| Charles B. Keefer, 316 Second Street, S. E., | District of Columbia. |
| William H. Liggin, 508 Ninth Street, N. W., | Georgia. |
| Thomas B. Lear, 530 Ninth Street, S. E., | District of Columbia. |

| Name. | State. |
|---|---|
| James P. Moore, 1427 S Street, N. W., | District of Columbia. |
| John R. McChesney, Chillum Post Office, | Maryland. |
| William E. Naff, 32 Grant Street, N. W., | North Carolina. |
| H. E. Perlie, 924 Fourteenth Street, N. W., | Massachusetts. |
| Stephen D. Pool, 1133 Sixth Street, N. W., | Louisiana. |
| William E. Pairo, 1953 Third Street, N. W., | Virginia. |
| William A. Rawson, 132 A Street, N. E., | Michigan. |
| Thomas M. Rice, 418 A Street, S. E., | Pennsylvania. |
| George Y. Stanford, 106 C Street, N. E., | Utah. |
| Ernest E. Smith, 225 F Street, N. E., | Virginia. |
| Christian C. Schneider, 1313 H Street, N. W., | Connecticut. |
| George T. Sabourin, Geological Survey, | Louisiana. |
| E. C. Shade, 1232 Fourteenth Street, N. W., | District of Columbia. |
| Pearce Thompson, Pension Office, | Kentucky. |
| A. Thomas Utz, 1212 Ninth Street, N. W., | Maryland. |
| Orville Van Deusen, 415 A Street, S. E., | Virginia. |
| Frank H. Waite, Second and E Streets, N. E., | Maryland. |
| Howard A. Wiltberger, 1219 Kenyon Avenue, N. W., | Pennsylvania. |
| J. Kendall Wallace, 613 Pennsylvania Avenue, S. E., | Ohio. |
| Richard Washington, M. D., 828 Twelfth St., N. W., | Virginia. |
| J. Edmond Whitson, 1527 Meridian Avenue, N. W., | District of Columbia. |
| H. W. Whitaker, 613 Pennsylvania Avenue, S. E., | Ohio. |
| W. G. Woodford, 1519 Eighth Street, N. W., | District of Columbia. |
| Walter Watts, 402 M Street, N. W., | Maryland. |
| Elmer F. Yount, 609 G Street, S. W., | District of Columbia. |
| Howard Young, 1210 Ninth Street, N. W., | Massachusetts. |
| James R. Yates, 1300 Pennsylvania Avenue, N. W., | District of Columbia. |

# THE VETERINARY SCHOOL.

## FACULTY OF MEDICINE AND SURGERY.

THE REV. BENAIAH L. WHITMAN, D. D.,
President of the Columbian University.

D. E. SALMON, D. V. M., A. R. C. V. S. (Hon.), 1225 O Street, N. W.
Dean and Professor of Sanitary Medicine, Control and Eradication of Contagious Diseases and Inspection of Meats.

JOHN LOCKWOOD, D. V. S., 816 Sixth Street, N. W.
Professor of Theory and Practice of Medicine and Surgery.

WM. P. CARR, M. D., 1319 Thirteenth Street, N. W.
Professor of General Physiology.

E. A. DE SCHWEINITZ, A. M., PH. D., M. D., 1325 H Street, N. W.
Professor of Chemistry.

CHARLES F. DAWSON, M. D., D. V. S., 1362 B Street, S. W.
Professor of Special Physiology and General Pathology.

A. M. FARRINGTON, B. Sc., B. V. S., 1436 Chapin Street, N. W.
Professor of Obstetrics and Zoötechnics.

D. E. BUCKINGHAM, V. M. D. (*Univ. Pa.*), 2118 Fourteenth St., N.W.
Professor of Materia Medica and Therapeutics.

JAMES CARROLL, M. D., Army Medical Museum.
Professor of Pathology and Bacteriology.

CECIL FRENCH, D. V. S., 714 Twelfth Street, N. W.
Professor of Canine Pathology.

ALBERT HASSALL, M. R. C. V. S., Bowie, Maryland.
Professor of Parasitology.

W. S. WASHBURN, M. D., 1221 M Street, N. W.
Professor of Histology.

_____ _____

Professor of Anatomy.

CHARLES F. HADFIELD, D. V. S., 210 M Street, N. W.
Demonstrator of Anatomy.

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**Special Lecturers.**

CH. WARDELL STILES, A. M., PH. D., M. S. (Hon.), Woodmont Flats.
Lecturer on Zoölogy.

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**Assistant Demonstrators.**

R. H. HADFIELD, D. V. S., 210 M Street, N. W.
B. E. HARPER, D. V. S., 1628 New Jersey Avenue, N. W.
C. H. LOCKWOOD, D. V. S., 816 Sixth Street, N. W.

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## INTRODUCTION.

In presenting the Fifth Annual Announcement of the National Veterinary College we were able to state that a most important change in the organization and direction of the College had just been accomplished. The National Veterinary College will hereafter be known as the Veterinary School of the Columbian University. Our students will have all the advantages and facilities for studying histology, pathology, and chemistry which are found in the laboratories of the Medical Department of this University. The faculty has been greatly strengthened by uniting several courses of instruction with similar courses in the Medical Department and by securing the services of eminent veterinarians for other important chairs.

The founders of this College have always been of the opinion that there should be an institution in Washington for the study of veterinary science, with broader foundations and more complete facilities than could be provided in any private school. The union now accomplished with the Columbian University raises the National Veterinary College to the desired plane, and places within its grasp all the advantages possessed by the great endowed institutions of the country.

There could be no more appropriate location for a veterinary college than the capital of this great stock-growing country.

Washington city has for many years, and more particularly during the last decade, attracted the attention of intelligent people as a place with peculiar educational advantages, especially for the matriculants of the higher institutions of learning. Such institutions are already numerous, and the student can now find here instruction of the highest grade in any study.

The location of Washington is central and easily accessible from the North and the South, the East and the West. This city being the seat of the National Government, it is the gathering place not only for statesmen and jurists, but for the representatives of the intelligence and wealth of the country. It is also the favorite place of meeting for scientific associations and international congresses of all kinds. It is the one cosmopolitan city of the country where the student from any section is certain to feel at home and to find congenial friends.

The faculty is made up of well-known veterinarians and experienced lecturers, who are recognized as authorities on the subjects which they teach. The courses have been arranged to suit the requirements of modern veterinary education. The lectures on the control and eradication of contagious diseases and on meat inspection are designed to fit the students for the many responsible and lucrative positions which have been opened up to competent men by recent State and National legislation.

Among the positions under the Federal Government are those of Inspectors and Assistant Inspectors in the Bureau of Animal Industry. These positions are now filled only by persons who are *veterinary graduates*, and who can pass the examination of the Civil Service Commission.

There are at present a number of very desirable places as veterinarians in the army cavalry service, and efforts are being made to increase the number of these places and to give those occupying them the rank and pay of a commissioned officer.

The vast amount of capital invested in our animals in the various States, the widespread existence of tuberculosis and other diseases in them, and

the influence which such diseases have upon the health and wealth of the country, make it more and more necessary that there be a class of persons thoroughly educated for the duty of coping with these conditions. The intelligent veterinary graduate is the logical candidate for such positions, and we now have many State veterinarians, as well as veterinarians to the State boards of health, while in nearly all the agricultural colleges and in most of the municipal governments veterinarians occupy important positions.

### College Calendar.

1896.

Oct. 1, 2. Examination and admission of students.
Oct. 3. Opening address at 8 p. m.
Oct. 5. Lectures commence.
Nov. 26–29. Thanksgiving vacation.
Nov. 30. Lectures resumed.
Dec. 23. Christmas vacation begins at close of lectures.

1897.

Jan. 4. Lectures resumed.
March 4. Inauguration day (Presidential).
April 2. Lectures cease.
April 5. Examinations begin.
April 10. Commencement exercises at 8 p. m.

### Session of 1897-'98.

Oct. 1, 2. Examination and admission of students.
Oct. 4. Lectures commence.

### Matriculation.

For the purpose of ascertaining whether candidates can profitably pursue the courses, an examination in the ordinary branches of an English education will be held. Students who can present evidence of having acquired sufficient preliminary training will be admitted without examination.

### Lecture Hours.

The didactic lectures will be given daily between the hours of 4.30 and 9.30 p. m.

The clinical lectures and demonstrations will be given from 9 a. m. to 12 m.

### Three-year Graded Course.

Beginning with the present session, all students (except those who entered the College before January, 1896) who wish the diploma of this College will be required to study here three sessions or to have attended some other veterinary college at least two sessions before entering the senior class.

Several of the States have recently passed laws requiring those who wish to practice veterinary medicine and surgery in them to be graduates of schools which have a three-year course of study, and there is a tendency toward such legislation in all the States. This College is thoroughly in sympathy with any movement looking to the improvement of veterinary education, and proposes to aid such advancement in every possible way.

## COLLEGE COURSE.

### Sanitary Medicine, the Control and Eradication of Contagious Diseases, and Meat Inspection.

PROFESSOR D. E. SALMON, D. V. M., A. R. C. V. S. (HONORARY).

This subject will be taught by lectures covering the whole field of infectious diseases, their history, nature, cause, diagnosis, and treatment. The results of recent investigations in this country and abroad will be incorporated and particular attention given to available sanitary measures and the laws and regulations for their enforcement. The effect of animal diseases upon the public health and the means of protecting mankind from these plagues receive due consideration. The principles of meat inspection are developed in the final lectures of the course. Professor Salmon's experience in organizing and directing the work of the United States Government for the eradication of contagious diseases and for meat inspection enables him to present these subjects in a practical manner, which must be of great advantage to those who aspire to positions in National, State, or city governments. The course is looked upon as one of the most important in our curriculum, and no efforts will be spared to maintain it at the highest degree of efficiency.

## Theory and Practice of Medicine and Surgery.

PROFESSOR JOHN LOCKWOOD, D. V. S.

The course in the practice of veterinary medicine and surgery will consist of didactic and clinical lectures. Daily clinics will be held. At these the student will be given every opportunity to learn all that each case may show. The methods of examination, differential diagnosis, and treatment will be thoroughly taught. The use of anæsthetics, the practice of dental surgery, lameness, and male and female castration will be especially dwelt upon.

## General Physiology.

PROFESSOR WILLIAM P. CARR, M. D.

Every effort will be made to teach this subject in a thorough, scientific, and practical manner. The ground will be fully covered by a two years' course of lectures, and these lectures so illustrated by modern diagrams, models, and experiments as to make them perfectly clear in every detail. Especial emphasis will be given to those truths that have a practical value.

Physiological anatomy will receive especial attention, and will be illustrated by charts, diagrams, working models, and anatomical specimens in all cases and by demonstrations upon anæsthetized living animals when necessary for a thorough understanding of the subject. Physiological anatomy will also be taught in the laboratory, and an opportunity will be given students to do practical physiological work as far as their time will permit.

## Chemistry and Toxicology.

PROFESSOR E. A. DE SCHWEINITZ, A. M., PH. D., M. D.

This course embraces:

A short discussion of the principles of physics in their relation to Chemistry, the principles of chemical philosophy, the laws of chemical combination and affinity.

The elements, metals and non-metals; their methods of isolation, properties, compounds, and reactions will be studied.

Due attention will be given to Organic Chemistry, especially those compounds that are of use in medicine.

Laboratory instruction will be given in the general methods of qualitative and quantitative analysis, toxicology, urine analysis, water analysis, and special clinical analysis.

Opportunity for advanced work in biochemistry will be afforded.

### Special Physiology and General Pathology.

PROFESSOR CHARLES F. DAWSON, M. D., D. V. S.

Weekly lectures extending over the whole term will be given in Physiology. The instruction will be given from a strictly veterinary standpoint, the leading subjects discussed to be the Physiology of Digestion and the Physiology of the Locomotor Organs.

In general pathology, weekly lectures will be given. Special attention will be given to the morbid anatomy and microscopic changes involved in inflammation, degeneration, hypertrophy, atrophy, and tumors. Methods for making autopsies and recording data will also be considered. The instruction will be given by means of lectures, recitations, and laboratory work. The demonstrations of both the gross and microscopic changes involved in the various disease processes will be given by Professor Carroll in the laboratory of the Medical Department.

### Obstetrics and Zoötechnics.

PROFESSOR A. M. FARRINGTON, B. SC., B. V. S.

The course of instruction will consist of lectures on obstetrical anatomy, fœtal development, presentations, and the diseases incidental to the periods of gestation and parturition.

The lectures will be illustrated by diagrams, models, natural preparations, and other appliances for demonstrating the principles taught.

Professor Farrington will also deliver a course of lectures on the breeds of horses, cattle, sheep, and swine, including their breeding, feeding, and management. This course will also embrace precautions to be observed in importing animals, their purchase, shipment, and quarantine—subjects of great value to those engaged in the handling of pure-bred stock.

### Materia Medica and Therapeutics.

PROFESSOR D. E. BUCKINGHAM, V. M. D.

The principles and practice of comparative therapeutics will be taught, including prescription writing. The course will also include an exhibition of the drugs and a description of the agencies, not drugs, employed by the veterinarian. Practical instruction will be given in all the methods used in the exhibition of medicines.

### Pathology and Bacteriology (Practical).

PROFESSOR JAMES CARROLL, M. D.

In addition to the study of gross changes of appearance seen in ordinary diseases, special attention will be given to the minute changes occurring in tissues in inflammation and inflammatory affections of the various organs, as well as to the cellular structure of the important tumors and new growths. To this end the microscope will be freely used. An attempt will also be made to impress upon the student the importance of a thorough and systematic autopsy in all cases, besides which he will have practical illustrations of the most approved methods for preparing bacteriological slides and cultures from the blood and other tissues of animals after death.

In his practical course in the Pathological Laboratory of the Medical Department the student will be taught to handle, stain, and mount his own sections, which will thereafter belong to him for purposes of future reference and study.

### Canine Medicine and Surgery.

PROFESSOR CECIL FRENCH, D. V. S.

The purpose of this course is to make students thoroughly acquainted with diseases of the dog and the modern methods of treatment. The course will consist of about twenty-four lectures and will be conducted by Dr. French, whose practice is confined entirely to the treatment of the canine race.

Students will have excellent opportunities for clinical observation on dogs of all breeds and ages under medical or surgical treatment at Dr. French's private modern canine infirmary.

## Parasitology.

PROFESSOR ALBERT HASSALL, M. R. C. V. S.

The instruction in this branch will consist of lectures upon the various parasites with which the domesticated animals are infested. Instruction as to prevention, eradication, and the treatment of the diseases caused by them will also be given.

## Histology.

PROFESSOR W. S. WASHBURN, M. D.

The study of Histology is compulsory for students in the first year of their course. Special attention will be given to the manipulation of the microscope and to that part of the technique necessary for an intelligent study of the tissues. This will be followed by a systematic study of the cellular structure of the elementary tissues and organs of animals. The histological laboratory is well equipped with microscopes and accessory apparatus necessary for carrying out a thoroughly practical course of study in this subject. Examinations will be held at the close of each session.

The practical part of this course will be given in common with the medical class in the histological laboratory of the University.

## Anatomy.

This essential branch will be taught by numerous lectures, daily reviews, and practical work in the dissecting-room. The work in this branch will be under the immediate direction of Dr. C. F. Hadfield. During the first half of the term practical work will be done in the anatomy of a carnivorous animal—the dog or the cat. The latter half will be devoted to equine anatomy, and, when possible, bovine visceral anatomy will be demonstrated. Thorough and satisfactory work in this subject will be required.

## Zoölogy.

PROFESSOR CH. WARDELL STILES, A. M., PH. D., M. S. (HONORARY).

The courses in Zoölogy are designed (1) to give the student a general knowledge of the animal kingdom as a matter of general education and culture; (2) to serve as an introduction to Anatomy, Histology, Physi-

ology, Obstetrics, and Breeding; (3) to aid the student in the study of Sanitary Medicine and Meat Inspection.

The following courses will be given during the session of 1896–1897:

I. Embryology.—Two hours per week during the fall term. This course will consist of about twenty lectures, including a general introduction to the biological sciences and a discussion of embryology up to the subject of organology. The lectures will be illustrated by numerous charts and diagrams. Required of Freshman Class.

II. Animal Parasites of Man.—Two hours per week during January and February. In this course the lecturer will give a general introduction to the subject of parasitology and a discussion of the protozoa, flukes, tapeworms, roundworms, arachnoides, and insects parasitic in the human subject. Particular attention will be given to the species which are transmissible to man from the domesticated animals. The lectures will be illustrated by a series of wall maps by Leuckart, by crayon sketches, by numerous original charts prepared especially for this course, and by exhibition of specimens. Practical laboratory exercise in microscopic examination of meat for trichinosis and of fæces for the eggs of intestinal parasites will supplement the lectures. Required of Junior Class, elective with Senior Class.

## Reviews.

In order to more thoroughly point out and impress upon the mind of the student the essentials of the subjects taught, frequent reviews are held by the members of the Faculty.

These reviews not only stimulate the student by clearing up obscure points and thereby awakening in him renewed interest, but they are a great help in fixing the material facts in his mind and in preparing him for the final examinations.

## Medical Association.

This Association was organized by the class in 1892. The membership is made up of members of the Faculty, graduates of the College, senior and junior students. Its meetings take place weekly, and all students are required to attend, it being considered a very important part of the instruction given in this College. Several members of the Faculty are habitual attendants, and by their presence encourage good work and at the same time correct any error into which the essayist or critics may fall.

## Curriculum.

FIRST YEAR—FRESHMAN CLASS.

Anatomy, Physiology, Chemistry, Materia Medica, Prescription Writing, Pharmacy, Histology and Technique of Microscope, Theory and Practice of Shoeing, Dentition, Embryology, Exterior of the Horse.

At end of first year preliminary examinations in Chemistry, Pharmacy, Microscopy, Topographical Anatomy, Osteology, Dentition, Shoeing, Embryology.

SECOND YEAR—JUNIOR CLASS.

Anatomy, Physiology, Materia Medica, Histology, Chemistry, Pathology, Sanitary Medicine, Principles and Practice of Medicine and Surgery, Obstetrics, Zoötechnics, Parasites of Man.

At end of second year final examinations will be held in Materia Medica, Histology, Obstetrics and Zoötechnics, Parasites of Man, and Chemistry.

THIRD YEAR—SENIOR CLASS.

Pathology, Bacteriology, Sanitary Medicine, Principles and Practice of Medicine and Surgery, Canine Practice, Physical Diagnosis, Parasitology, Veterinary Physiology.

At end of third year students will be examined for the degree in all the branches not hitherto completed. Students from other colleges will be allowed to enter the senior class by presenting satisfactory evidence of having passed final examinations in the branches taught during the first and second years.

## College Building.

The College building is a two-story structure, completely isolated from other buildings, thus allowing an abundance of light and pure air to stream in through its numerous windows; the lecture hall is large, giving ample breathing space—items of considerable importance to students who are confined four or five consecutive hours daily.

## The Hospital Building.

This is adjacent to the College building and will be ample for all present needs. It is provided with stalls for the treatment of all classes of

patients. A large yard in the rear of the hospital affords an excellent place for examining and exercising the patients and for enlarging the hospital when this becomes necessary.

## Laboratories.

The laboratories of *Histology, Pathology, Bacteriology,* and *Chemistry* are located in the building of the Medical Department of the University, and veterinary students will be given instruction in these branches in common with the medical students.

The *Anatomical Laboratory* is large, well lighted and ventilated, and occupies most of the second floor of the College building. It is supplied with the necessary conveniences for the work carried on in it.

## Requirements for Graduation.

Candidates for graduation must be of good moral character, correct in deportment, twenty-one years of age, have attended full courses of lectures, the last of which must have been in this College; have paid all fees due the College, and have passed a satisfactory examination before the Faculty.

## Fees for Entire Course.

| | *1st year.* | *2d year.* | *3d year.* |
|---|---|---|---|
| Registration fee | $5 00 | $5 00 | $5 00 |
| Lecture and dissecting fees | 75 00 | 75 00 | 75 00 |
| Final examination fee | ..... | ..... | 10 00 |
| Totals | $80 00 | $80 00 | $90 00 |

## Regulations and General Information.

Graduates in human medicine will be admitted to the Junior Class.

Students will be exempt from examination in any branch upon which they can submit evidence of having passed a final examination in any recognized medical school, college, or university.

*All fees should be paid on entering the College* or arrangements made with the Secretary for subsequent payments. The examination fee must be deposited with the Secretary on or before April 1.

The cost of living in Washington will, as elsewhere, vary with the individual taste and requirements. Generally speaking, it is about the same as in other large cities. Rooms and board can be obtained in the immediate vicinity at from $15 to $25 per month. The College and Hospital buildings are located at the intersection of New Jersey avenue and O street, N. W., and are in proximity to five different street-car lines, which run to all parts of the city and suburbs, making it possible for students to visit places of historic interest at a nominal cost.

Students who arrive via the Pennsylvania railroad can reach the College directly by taking the Seventh-street cable-car at Seventh street and Pennsylvania avenue and riding north on Seventh to O street. The College is three blocks east of this point. Those who arrive via the Baltimore and Ohio railroad can reach the College by taking the Belt Line car going north on First street, one block west of the depot. This line runs in a northerly direction, passing the College.

For further information address—

DR. CHARLES F. DAWSON, *Secretary*,
*New Jersey Avenue and O Street, N. W.*,
*Washington, D. C.*

## THE HOSPITAL.

DR. JOHN LOCKWOOD,
House Surgeon.

DR. C. F. HADFIELD,
Assistant House Surgeon.

DR. D. E. BUCKINGHAM,
DR. CECIL FRENCH,
Visiting and Consulting Surgeons.

### Clinical Instruction.

No pains or reasonable expense will be spared to secure ample clinical material for instruction. During the session just ended all our students had opportunities of witnessing many and varied clinics.

The private practices of the above-named veterinarians will be utilized as far as necessary to give thorough and complete clinical instruction in

the diseases of horses, cows, and dogs, as well as the smaller animals to be found in the household.

*Physical diagnosis*, writing *certificates of soundness*, and *veterinary dental surgery* will be important features of the hospital instruction, and attendance by *all* students is required.

## Students in Veterinary School.

| Name and address. | State. |
|---|---|
| L. E. Almony, 1425 Eighth Street, N. W., | Maryland. |
| Reid R. Ashworth, 110 M Street, N. W., | Rhode Island. |
| F. B. Berger, 1425 Eighth Street, N. W., | Maryland. |
| W. H. Bolyn, 943 Virginia Avenue, S. W., | Virginia. |
| B. A. Brown, 623 M Street, N. W., | Canada. |
| W. P. Ellenberger, 1425 Eighth Street, N. W., | Illinois. |
| G. W. Horner, 1425 Eighth Street, N. W., | Maryland. |
| A. G. Kern, 611 M Street, N. W., | Tennessee. |
| J. N. Megary, 1425 Eighth Street, N. W., | Maryland. |
| H. N. Meyer, 1715 Seventh Street, N. W., | Pennsylvania. |
| John Shaw, 1217 P Street, N. W., | Delaware. |
| Alfred F. Schulz, 911 G Street, N. W., | Germany. |
| R. H. Twitty, 1425 Eighth Street, N. W., | North Carolina. |
| G. R. White, 1425 Eighth Street, N. W., | Tennessee. |
| Charles J. Weinheimer, 621 Maryland Ave., S. W., | District of Columbia. |
| Halbert Young, 1517 Howard Street, N. W., | District of Columbia. |

## Text-Books and Works of Reference.

Anatomy: Strangeway, Chauveau, McFadyean, Howell's Dissection of the Dog.

Physiology: Mills' Comparative, F. Smith, Flint, Yeo.

Materia Medica and Therapeutics: Finlay Dun, Wood, Bartholow.

Chemistry: Simon, Atfield, Remsen's Organic.

Surgery: Liautard.

Practice: Friedberger and Fröhner.

Obstetrics: Fleming.

Canine Practice: Mills, Hill, Youatt, Mayhew, Steel.

Veterinary Dentistry: Hinebauch, Clarke.

Lameness and Shoeing: Zundel, Fleming.

Dictionary: Dunglison, Keating, Gould.

Age of Domestic Animals: Huidekoper, Liautard.
Bacteriology: Abbott, Sternberg.
Zoölogy—Parasites: Neumann by Fleming; Stiles. Embryology: Hertwig.
Meat Inspection: Walley.
Histology: Piersol, Schæfer.
Cattle Practice: Steel, Hill.
Exterior of the Horse: Goubaux & Barrier, Percival.
Pathology: Green, Delafield & Prudden.

Freshmen should procure text-books on the following subjects: Anatomy, Physiology, Materia Medica and Therapeutics, Chemistry, Obstetrics, and a Medical Dictionary.

# DEPARTMENT OF UNIVERSITY EXTENSION.

CHARLES T. SEMPERS, A. M., DIRECTOR.

The object of University Extension is to provide the means of higher education for persons without interfering with the regular occupations of life.

This is accomplished by means of—

The Lecture Course.

The Class Course.

The Correspondence-study Course.

THE LECTURE COURSE.—In order to make the Lecture Course attractive to persons desiring merely a general acquaintance with the subjects taught, as well as to students who are anxious to make a more thorough study, a special method is followed.

LECTURERS.—The lecturers are either professors in The Columbian University or persons specially approved by the University.

THE CLASS COURSE usually consists of a series of ten weekly meetings with the lecturer, each meeting occupying about one hour. Personal teaching, study, and discussion, following a required text-book, take up the entire time.

THE CORRESPONDENCE-STUDY COURSE is conducted by mail. It consists of forty weekly exercises written by the student under the direction of an instructor. A student may begin a course at any time of the year.

EXPENSE.—The fee for the Lecture Course is $130. The fee for the Class Course is $75. These fees are due at the time of the second meeting from the center or class as a whole to the office. The cost to the individual varies according to the number of members in the center or class. The price of course tickets has usually been between $1 and $2.50. The fee for the Correspondence Course is $20.

For circulars giving detailed information, address—

DIRECTOR UNIVERSITY EXTENSION,
THE COLUMBIAN UNIVERSITY,
WASHINGTON, D. C.

# DEGREES CONFERRED IN 1896.

## HONORARY.

### Doctor of Laws.

| Name. | Residence. |
|---|---|
| Robert Stuart MacArthur,<br>B. A., D. D., University of Rochester. | New York. |
| Adlai E. Stevenson, | Illinois. |

### Doctor of Divinity.

| | |
|---|---|
| James Albert Buck,<br>B. A., Bristol College, 1836. | District of Columbia. |
| George Hughes Hepworth, | New York. |

## UPON EXAMINATION.

### Doctor of Philosophy.

| | |
|---|---|
| Edward Clark Hudson,<br>A. B., Hiawassee College, 1882.<br>A. M., Columbian University, 1894.<br>A. M., Honorary, Hiawassee, 1894. | Texas. |
| James Stephen Lemon,<br>B. A., 1864, M. A., 1867, Wesleyan University. | New York. |

### Master of Science.

| | |
|---|---|
| Edna Anne Clark,<br>B. S., Columbian University, 1893. | New Hampshire. |
| Allan Davis.<br>B. S., Columbian University, 1890. | Ohio. |
| Bolivar Lang Falconer,<br>M. D., Georgetown University, 1895. | Texas. |
| Agnes Montgomery Graham,<br>B. S., Columbian University, 1895. | Pennsylvania. |
| William Theodore Gray,<br>U. S. Naval Academy, 1883. | North Carolina. |

| Name. | Residence. |
|---|---|
| Daisy Maud Orleman,<br>M. D., Columbian University, 1890.<br>B. S., Columbian University, 1893. | New York. |
| Clarence Le Roy Parker,<br>B. S., Columbian University, 1895. | New York. |
| David Henry Sleem,<br>B. A., 1879, M. D., 1887, Beyrout College.<br>M. D., 1889, New York University. | Syria. |

**Master of Arts.**

| | |
|---|---|
| Ewing Cockrell,<br>A. B., Harvard University, 1895.<br>B. L., University of Virginia, 1895. | Missouri. |
| Samuel Carroll Ford,<br>A. B., Columbian University, 1894. | District of Columbia. |
| George Neely Henning,<br>A. B., Harvard University, 1894. | District of Columbia. |
| Addie Estelle Maguire,<br>B. S., Columbian University, 1895. | District of Columbia. |

**Doctor of Medicine.**

| | |
|---|---|
| Frank A. Barbour, | Mississippi. |
| Marion Dorset, | Tennessee. |
| James M. Fairly, | Mississippi. |
| W. A. Frankland, | Virginia. |
| O. J. Gwynn, | Colorado. |
| J. R. Hamilton, | Texas. |
| A. B. Hooe, | Virginia. |
| Montgomery Hunter, | Virginia. |
| A. L. Lawrence, | Ohio. |
| Hanson T. A. Lemon, | District of Columbia. |
| R. L. Lynch, | Indiana. |
| James McIlhenny, | District of Columbia. |
| E. W. Patterson, | Ohio. |
| H. T. Penny, M. D., | Montana. |
| Delos N. Reeve, | Iowa. |
| Henry M. Seltzer, | Pennsylvania. |
| W. S. Scott, | Maryland. |
| Edwin P. Wolfe, | Iowa. |
| T. A. Whittington, | Nebraska. |

## Doctor of Dental Surgery.

| Name. | Residence. |
|---|---|
| Richard V. Barry, | District of Columbia. |
| L. Joe Broughton, | North Carolina. |
| Edward F. Concklin, | Rhode Island. |
| Joseph L. Egan, | Connecticut. |
| Wilmer S. Hall, | Alabama. |
| Harry A. Jelly, | Maryland. |
| Llewellyn Jordan, M. D., | Mississippi, |
| Hubert L. King, | District of Columbia. |
| Samuel C. Luckett, | Texas. |
| John A. Moore, | Indiana. |
| Harry B. Moore, | District of Columbia. |
| J. Reverdy Stewart, | Virginia. |
| Robert E. L. Wiltberger, | District of Columbia. |
| James L. Whiteside, | Maryland. |

## Master of Laws.

| | |
|---|---|
| Robert Felder Able, | South Carolina. |
| LL. B., Columbian University, 1895. | |
| William J. Acker, | District of Columbia. |
| LL. B., Columbian University, 1895. | |
| Daniel J. Carr, | Connecticut. |
| LL. B., Columbian University, 1895. | |
| John Barber Clark, Jr., | District of Columbia. |
| LL. B., Columbian University, 1895. | |
| Alan Ogilvie Clephane, | District of Columbia. |
| LL. B., Columbian University, 1895. | |
| Ewing Cockrell, | Missouri. |
| A. B., Harvard University, 1895. | |
| LL. B., University of Virginia, 1895. | |
| George Bruce Cortelyou, | New York. |
| LL. B., Georgetown University, 1895. | |
| Jesse Padon Crawford, | Kentucky. |
| LL. B., Columbian University, 1895. | |
| J. A. Eakin Criswell, | New York. |
| LL. B., Columbian University, 1895. | |
| Alfred Newton Dalrymple, | District of Columbia. |
| LL. B., Columbian University, 1895. | |

| Name. | Residence. |
|---|---|
| Allen A. Davis,<br>A. B., S. W. Baptist University, 1894.<br>LL B., Columbian University, 1894. | Tennessee. |
| William R. Davis,<br>LL. B., Columbian University, 1895. | New York. |
| John E. Dawson,<br>LL. B., Columbian University, 1895. | Massachusetts. |
| Robert Oldner Deyer, | Virginia. |
| Stephen W. Gambrill,<br>LL. B., Columbian University, 1895. | Maryland. |
| Daniel Edward Garges,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| H. Prescott Garley,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Frank Ferdinand Gentsch,<br>LL. B., Columbian University, 1895. | Ohio. |
| John C. Goodfellow,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Harvey B. Gram,<br>LL. B., Columbian University, 1895. | Ohio. |
| Alpha M. Hassler,<br>LL. B., Georgetown University, 1895. | South Dakota. |
| George C. Hazelton, Jr.,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| John H. Hazelton,<br>A. B., Johns Hopkins, 1893.<br>LL. B., Columbian University, 1895. | District of Columbia. |
| David Merrill Hildreth,<br>B. S., Dartmouth, 1887.<br>M. S., Dartmouth, 1894.<br>LL. B., National University Law School, 1893. | New Hampshire. |
| Herman R. Howenstein,<br>LL. B., Columbian University, 1895. | Missouri. |
| A. Roland Johnson,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Lee Mason Jordan,<br>LL. B., Columbian University, 1895. | Georgia. |
| Carter Brewster Keene,<br>LL. B., Columbian University, 1895. | Maine. |

| Name. | Residence. |
|---|---|
| Harry G. Kimball,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Harvey C. Long, | Mississippi. |
| Marvin M. McLean,<br>LL. B., University of Texas, 1890. | Texas. |
| Christopher K. Macey,<br>LL. B., Columbian University, 1895. | New York. |
| C. Carroll Martin,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Edgar H. May,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Robert F. Miller,<br>LL. B., Columbian University, 1893. | District of Columbia. |
| George A. H. Mills,<br>LL. B., Columbian University, 1895. | New York. |
| Emerson R. Newell,<br>A. B., Yale, 1893. | Connecticut. |
| Edwin Alonza Niess,<br>LL. B., Columbian University, 1895. | Pennsylvania. |
| Francis Nye,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Edwin Howe Peery,<br>LL. B., Missouri State University, 1881. | Oregon. |
| Graham Hume Powell,<br>LL. B., Columbian University, 1895. | New York. |
| Jesse Weems Rawlings,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| Emil Charles Schneider,<br>LL. B., Columbian University, 1895. | Illinois. |
| John C. Scofield,<br>A. B., 1880; A. M., 1884, Middlebury College.<br>LL. B., Columbian University, 1895. | Georgia. |
| Charles Frederick Sensner,<br>LL. B., Columbian University, 1895. | Virginia. |
| F. Marion Smith,<br>LL. B., Columbian University, 1895. | West Virginia. |
| Frederick George Stutz,<br>LL. B., Columbian University, 1895. | District of Columbia. |
| William Leonard Symons,<br>LL. B., Columbian University, 1895. | Ohio. |

| Name. | Residence. |
|---|---|
| Morven Thompson, | District of Columbia. |
| LL. B., Columbian University, 1895. | |
| Henry Stanley Tullis, | Montana. |
| LL. B., Columbian University, 1895. | |
| Horace Greeley Van Everen, | New York. |
| M. E., Cornell, 1891. | |
| LL. B., Columbian University, 1895. | |
| William Warren Werntz, | Massachusetts. |
| LL. B., Columbian University, 1895. | |
| David Edgar Wilson, | District of Columbia. |
| A. B., Western Maryland College, 1893. | |
| LL. B., Columbian University, 1895. | |
| Louis H. Wulfekuhler, | Kansas. |
| LL. B., Kansas State University, 1895. | |

**Master of Patent Law.**

| | |
|---|---|
| S. Hazen Bond, | District of Columbia. |
| LL. B., Columbian University, 1894. | |
| LL. M., Columbian University, 1895. | |
| William Duvall Brown, | District of Columbia. |
| LL. B., Columbian University, 1892. | |
| LL. M., Columbian University, 1893. | |
| Grant Burroughs, | District of Columbia. |
| J. A. Eakin Criswell, | New York. |
| LL. B., Columbian University, 1895. | |
| A. B. Cushman, | Massachusetts. |
| LL. B., Columbian University, 1892. | |
| LL. M., Columbian University, 1893. | |
| Clarence W. De Knight, | District of Columbia. |
| Edward Taylor Fenwick, | District of Columbia. |
| LL. B., Columbian University, 1890. | |
| Addison Irwin Gardiner, | District of Columbia. |
| B. S., Worcester Polytechnic Institute, 1889. | |
| LL. B , Columbian University, 1892. | |
| Walter R. Hensey, | District of Columbia. |
| LL. B., Columbian University, 1894. | |
| J. Granville Meyers, Jr., | District of Columbia. |
| LL. B., Columbian University, 1893. | |
| LL. M., Columbian University, 1894. | |

| Name. | Residence. |
|---|---|
| Arthur Johns, | District of Columbia. |
| Abraham B. Keefer, | Pennsylvania. |
| Colton H. Lee, | District of Columbia. |
| Robert Francis Livingston, | New York. |
| B. S., Cornell, 1894. | |
| John W. Loder, | Oregon. |
| B. S., McMinnville, 1894. | |
| Lucas Powell Loving, | Virginia. |
| Alexander D. Lunt, | New York. |
| M. E., M. M. E., Cornell. | |
| B. S., Worcester Polytechnic Institute. | |
| Ormsby McCammon, | District of Columbia. |
| John J. McGrain, | Indiana. |
| James Madison, | Virginia. |
| Charles Bott Mann, | Mississippi. |
| Henry M. Marshall, | Virginia. |
| John A. Massie, | District of Columbia. |
| Leonard J. Mather, | District of Columbia. |
| Guy Stanley Meloy, | Maryland. |
| Edward Pool Mills, | Virginia. |
| Frank Horace Moore, | Kansas. |
| A. B., Kansas University, 1894. | |
| Noble Moore, | Tennessee. |
| Henry Orth, Jr., | District of Columbia. |
| Wilber Allen Owen, | Michigan. |
| Charles W. Parker, | Virginia. |
| Thornton Jenkins Parker, | Rhode Island. |
| Orin Patterson, | Missouri. |
| Bennett Peck, | District of Columbia. |
| Francis Mohun Phelps, | Connecticut. |
| James Franklin Philp, | New York. |
| Aurelian Howard Pinney, | Iowa. |
| William Bell Pugh, | Kentucky. |
| J. Castle Ridgway, | Illinois. |
| Thomas M. Robertson, | North Carolina. |
| Raymond Robins, | Florida. |
| J. Martin Scranage, | West Virginia. |
| Arthur Bingham Seibold, | District of Columbia. |
| Clem L. Shaver, | West Virginia. |

| Name. | Residence. |
|---|---|
| Alonzo Walter Shunk, | Pennsylvania. |
| Laban Sparks, | Maryland. |
| Henry E. Stauffer, | Delaware. |
| Charles H. Stevenson, | Maryland. |
| W. P. Stone, | Arkansas. |
| James A. Tanner, | District of Columbia. |
| Blain W. Taylor, | West Virginia. |
| William Hill Taylor, | Ohio. |
| Robert W. Test, | Illinois. |
| Clarke Kirk Tilton, | District of Columbia. |
| John Sarsfield Tucker, | New York. |
| William Pinckney Walker, | Ohio. |
| John L. Weaver, | District of Columbia. |
| William James Whitaker, | Pennsylvania. |
| George Dudley Whitney, | New Jersey. |
| Gerome M. Whitney, | Virginia. |
| Robert Emmet Wiley, | Arkansas. |
| Charles Frederick Wilson, | District of Columbia. |
| Joshua S. Zimmerman, | West Virginia. |
| A. B., Randolph-Macon College. | |

**Bachelor of Arts.**

| | |
|---|---|
| Edward Albert Playter, | Iowa. |
| H. May Johnson, | District of Columbia. |
| Henrietta Camille Morrison, | Missouri. |
| Mary Katherine Chapin, | Illinois. |
| Eleanor Wilson, | District of Columbia. |

**Bachelor of Science.**

| | |
|---|---|
| Harry Hampton Donnally, | Virginia. |
| Alfredo Victor Gana, | Chile. |
| Ph. B., University of Chile, 1893. | |
| Mortimer B. Hall, | Maryland. |
| James Richard Hamilton, M. D., | Texas. |
| John Bartlett Hull, | Georgia. |
| U. S. Naval Academy. | |
| Elliott Coues Prentiss, | District of Columbia. |
| H. Worthington Talbott, | Maryland. |

## Recapitulation.

| | |
|---|---|
| Students in the College | 96 |
| Students of Medicine | 186 |
| Students of Dentistry | 60 |
| Students of Law | 318 |
| Students in the Scientific School | 192 |
| Students in the Graduate School | 36 |
| Students in the Summer School | 57 |
| Students in the Academy | 52 |
| Students in the Veterinary School | 16 |
| Total | 1,013 |

## Geographical Distribution of University Students.

| | | | | | |
|---|---|---|---|---|---|
| Alabama | 5 | Michigan | 17 | Texas | 13 |
| Arkansas | 5 | Minnesota | 10 | Utah | 1 |
| California | 6 | Mississippi | 7 | Vermont | 7 |
| Colorado | 1 | Missouri | 16 | Virginia | 87 |
| Connecticut | 9 | Montana | 1 | Washington | 3 |
| Delaware | 3 | Nebraska | 5 | West Virginia | 13 |
| Dist. of Columbia | 330 | Nevada | 3 | Wisconsin | 14 |
| Florida | 2 | New Hampshire | 6 | | |
| Georgia | 21 | New Jersey | 10 | Armenia | 1 |
| Idaho | 4 | New York | 53 | Canada | 2 |
| Illinois | 31 | North Carolina | 25 | Chile | 1 |
| Indiana | 11 | North Dakota | 1 | England | 1 |
| Iowa | 12 | Ohio | 38 | Germany | 4 |
| Kansas | 8 | Oklahoma | 1 | Japan | 2 |
| Kentucky | 14 | Oregon | 1 | Mexico | 1 |
| Louisiana | 10 | Pennsylvania | 50 | Norway | 1 |
| Maine | 13 | Rhode Island | 4 | Scotland | 1 |
| Maryland | 65 | South Carolina | 13 | | |
| Massachusetts | 25 | Tennessee | 25 | Total | 1,013 |